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CONTENTS.

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GOULSTONIAN LECTURES on the Influence of Pregnancy upon Certain Medical Diseases, and of Certain Medical Diseases upon Pregnancy. Delivered before the Royal College of Physicians of London on March 17th, 19th, and 24th, 1908, by HERBERT FRENCH, M.A., M.D.Oxon., F.R.C.P.Lond., Assistant Physician to Guy's Hospital.—Lecture I. (*Illustrated*) 1257

A LECTURE on the Special Psychology of Women. Delivered at the Institute of Hygiene on March 10th, 1908, by THOMAS CLAYE SHAW, M.D.Lond., F.R.C.P. Lond., Lecturer on Psychological Medicine at St. Bartholomew's Hospital, London 1263

ORIGINAL ARTICLES.

Ophthalmia Neonatorum: an Experiment in Treatment. By A. NIMMO WALKER, B.A., M.B., B.C.Cantab., M.R.C.S. Eng., L.R.C.P.Lond., Assistant Surgeon to St. Paul's Eye and Ear Hospital and to the School for the Indigent Blind, Liverpool. With a Note by A. A. MUSSEN, B.A., M.D., B.Ch.Dub., D.P.H. ... 1267

The Treatment of Trachomatous Dacryocystitis. By T. HARRISON BUTLER, M.D. Oxon., M.R.C.S.Eng., Honorary Ophthalmic Surgeon to the Coventry and Warwickshire Hospital.—(*Illustrated*) 1269

On the Pathology and Treatment of Inguinal Hernia in Children. By C. H. FAGGE, M.S. Lond., F.R.C.S. Eng., Assistant Surgeon to Guy's Hospital; Consulting Surgeon to the Evelina Hospital for Sick Children, Southwark 1270

Disseminated Sclerosis, commencing with Failure of Vision. By R. T. WILLIAMSON, M.D. Lond., F.R.C.P. Lond., Assistant Physician, Royal Infirmary, and Lecturer in Medicine, Victoria University, Manchester. — (*Illustrated*) 1272

On the Rectal Administration of Antitoxic Sera. By J. PORTER PARKINSON, M.D. Lond., F.R.C.S. Eng., Physician at the Queen's Hospital for Children and at the London Temperance Hospital 1273

Motoring Notes. By C. T. W. HIRSCH, M.R.C.S. Eng., L.R.C.P. Lond. 1294

CLINICAL NOTES:
MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

Case of Poisoning by Bromide of Potassium. By A. CAMPBELL STARK, M.B., B.S. Lond. 1274

A Case of "Œdema" Limited to the Arms, Face, and Neck. ? Cause. By J. M. BENNION, M.A., M.D., B.C.Cantab., M.R.C.S. Eng. 1274

A Case of Subclavicular Dislocation of the Humerus. By WM. BOURNE HALLOWES, L.R.C.P., L.M., L.R.C.S.Irel. 1275

MEDICAL SOCIETIES.

ROYAL SOCIETY OF MEDICINE: OBSTETRICAL AND GYNÆCOLOGICAL SECTION:—Tuberculosis of the Fallopian Tube.—Cæsarean Hysterectomy.—The Excretion of Creatinin. — Intra-uterine Death of the Fœtus 1275

MEDICAL SOCIETY OF LONDON: Malta Fever 1276

HUNTERIAN SOCIETY: Discussion on Rheumatism.. 1277

UNITED SERVICES MEDICAL SOCIETY: Probable Diseases of a Territorial Army 1277

ROYAL ACADEMY OF MEDICINE IN IRELAND: An Abnormal Placenta. — Operative Treatment of Puerperal Infection 1278

WINDSOR AND DISTRICT MEDICAL SOCIETY: The Pre-operative Treatment of Non-malignant Disease of the Stomach..... 1279

WIGAN MEDICAL SOCIETY: Exhibition of Cases.—Renal Calculi 1279

REVIEWS AND NOTICES OF BOOKS.

A Manual of the Practice and Theory of Medicine. By Sir William Whitla, M.A., M.D. R.U.I., LL.D. 1280

Diseases of the Nose and Throat. By Herbert Tilley, B.S.Lond., F.R.C.S.Eng..... 1280

The Diagnosis and Treatment of Diseases of Women. By H. Sturgeon Crossen, M.D.... 1281

Practical Diagnosis: the Use of Symptoms and Physical Signs in the Diagnosis of Disease. By Hobart Amory Hare, M.D., B.Sc. Sixth Edition 1281

The Black Death of 1348 and 1349. By Francis Aidan Gasquet, D.D. 1282

A Course of Practical Organic Chemistry. By T. Slater Price, D.Sc., Ph.D., F.I.C., and Douglas F. Twiss, M.Sc., A.I.C. 1282

Annales Médicales et Bulletin de Statistique de l'Hôpital d'Enfants Hamidié. Edited by Dr. Ibrahim Pacha 1282

Paraffin in Surgery: a Critical and Clinical Study. By William H. Luckett, B.S., M.D., and Frank I. Horn, M.D. 1282

A Manual of Orthopedic Surgery. By Augustus Thorndike, M.D. 1283

NEW INVENTIONS.

Note on a New Syringe for the Injection of Iodipin, with a Description of the Method of Using.—(*Illustrated*) 1283

LEADING ARTICLES.

DIRTY AND TUBERCULOUS MILK FOR LONDON 1284

TRYPANOSOMES AND TRYPANOSOMIASES 1285

"THE SPECIAL PSYCHOLOGY OF WOMEN" 1286

ANNOTATIONS.

The Health Authorities and the Unemployed in Chicago 1287

The Antiquity of the Coffin ... 1288

The Delhi Medical Mission..... 1288

Localisation of Function in the Lemur's Brain 1289

The Standardisation of Disinfectants 1289

Class Mortality Statistics 1290

The Distribution of Rainfall in the British Isles 1290

Traumatic Kyphosis 1290

A Work of Supererogation 1291

Millon's Reagent as a Test for Pus 1291

Bombay Medical Congress 1291

Typhoid Meningitis without other Lesions 1292

The Departmental Committee on Inebriates 1292

The Desmoid Reaction for Investigating the Function of the Stomach..... 1292

Pancreatic Diverticula of the Small Intestine 1293

Tuberculosis of the Gall Bladder 1293

LOOKING BACK.
(From THE LANCET, Saturday, May 1st, 1830.)

On the Medical Service of the East India Company..... 1300

VITAL STATISTICS:
Health of English Towns..... 1300
Health of Scotch Towns 1301
Health of Dublin..... 1301

SPECIAL ARTICLES.

The Belfast Health Commission 1295

Sanitary Reform in India.—VII.: The Annual Sanitary Reports 1296

Medicine and the Law: Jamaica Rum and Demerara Rum; Exemplary Sentence on a Milk Dealer; Death from Eating Chromate of Potassium; Mr. Troutbeck on Deaths under Anæsthetics; a Medical Man's Motor-car in Collision..... 1298

Lynn Thomas and Skyrme Fund 1299

The New Gallery 1299

The Services..... 1301

Notes upon Health Resorts: Scandinavian Winter Health Stations. — II.: Norway's Winter Health Resorts.—(*Illustrated*) 1306

Wales and Western Counties Notes: Diphtheria in Holywell 1308

Scotland: The McAlpin Nursing Home, Glasgow; Honour to Glasgow Professors 1308

Ireland: The Irish University Bill 1309

Paris: The Fat Treatment of Diabetes..... 1310

Italy: Cretinism 1310

Vienna: A Successful Case of Talma's Operation 1311

New York: Rights of Working Women 1311

CORRESPONDENCE.

The Epidemiology of Diphtheria (Mr. James Cantlie, Professor A. E. Mettam)..... 1302

Infant Insurance 1303

Coroners' Inquests upon Deaths during Surgical Anæsthesia (Mr. H. Bellamy Gardner, Mr. Charles Higgens, Dr. J. C. McWalter) 1304

Wórth's Advancement Operation (Mr. Claud Worth) 1305

The Inhalation Treatment of Consumption (Dr. C. Muthu) 1305

The Royal Dental Hospital: a Special Appeal (Lord Rothschild and others) 1305

Longevity at Brighton (Rev. J. P. Bacon-Phillips)..... 1318

Bagnoles de L'Orne 1318

OBITUARY.

Prof. Leopold von Schrötter ... 1312

Deaths of Eminent Foreign Medical Men 1313

MEDICAL NEWS.

The Riberi Prize..... 1288

Invalid Children's Aid Association..... 1283

The Children's Country Holiday Fund 1293

West London Post-Graduate College 1299

Literary Intelligence 1301

University of London 1312

Pass-lists of the Universities of Oxford and Cambridge, Society of Apothecaries of London, University of Edinburgh, and Royal Colleges of Physicians and Surgeons of Edinburgh and Faculty of Physicians and Surgeons of Glasgow 1313

Foreign University Intelligence 1314

Far Eastern Association of Tropical Medicine 1314

Donations and Bequests 1314

Evelina Hospital for Sick Children..... 1314

Corbridge Hospital 1314

Royal Society of Medicine 1315

Presentations to Medical Practitioners 1315

The Public Purse and Defective School Children 1315

Memorial to the late Mr. Wm. Van Praagh 1315

Medical Magistrates 1315

Medical Sickness and Accident Society 1315

Trinity College, Dublin 1315

PARLIAMENTARY INTELLIGENCE.

Notes on Current Topics..... 1316

House of Commons 1316

Books, &c., received 1316

Appointments 1317

Vacancies 1317

Births, Marriages, and Deaths.. 1317

Notes, Short Comments, and Answers to Correspondents.. 1318

Medical Diary 1318

Acknowledgments of Communications received 1320

FOR INDEX TO ADVERTISEMENTS SEE PAGES 2 & 4.

INDEX.

MEDICAL AND OTHER BOOKS AND PUBLICATIONS.

COVER.

PAGE

ARNOLD:—
Wilson & Howell.... Movable Kidney 1

BAILLIERE, TINDALL, & COX:—
Campbell.... Treatment..... 1
Eccles ..... Hernia..... 1
" ..... Imperfectly Descended Testis..... 1
Mayo Collier Mouth Breathing, &c.... 1
" Chronic Progressive Deafness 1

BALE, SONS, & DANIELSSON:—
Hood..... Clinical Aspects of Pneumonia..... 1

BLACK, A. & C.:—
Keith & Keith Cancer 1

BLAKELEY:—
Fenwick .... Uterine Fibroids..... 1
" .... Common Complaints of Women 1
Leaf..... Diseases of the Rectum and Anus..... 1

CASSELL & CO.:—
Luff ..... Gout..... 1

CLAISHER:—
Savill ..... Neurasthenia 1
" ..... Lectures on Hysteria .. 1

KIMPTON:—
Sandwith.... Medical Diseases of Egypt 1

LONGMANS, GREEN & CO.:—
Halliburton. Chemical Physiology .. 1
Hare ..... Food Factor in Disease 1

MEDICAL PUBLISHING CO.:—
Curtis ..... Liver Abscesses 1

METHUEN & CO.:—
Mackenzie .. Health of the School Child..... 1

SAUNDERS COMPANY:—
Successful Text-books for Students .. 1

WRIGHT & CO. (BRISTOL):—
Index of Treatment 1

MEDICAL LIBRARIES, &c.:—
O'Connor Extension Co.—
Mechanical Orthopædics 11

APPLETON:—
Calwell & Campbell.. Text-book of Treatment 9
Foote ..... Minor Surgery 9

PAGE

APPLETON—(Continued).
Holt ..... Diseases of Infancy 9
Kelly..... Medical Gynecology .. 9
Osler..... Practice of Medicine .. 9
Williams... Obstetrics 9
Wynter .... Minor Medicine 9

ASH, SONS & CO.:—
Hewitt..... Nitrous Oxide, &c. 6

BAILLIERE, TINDALL & COX:—
Bianchi .... Psychiatry 46
Bidwell .... Intestinal Surgery..... 12
Bigg ..... Cancer..... 10
Bradford & Lovett .... Orthopædic Surgery.... 46
Broadbent .. Diseases of the Heart .. 46
Cabot ..... Physical Diagnosis 46
Crook ..... High Frequency Currents 46
Findley .... Diseases of Women 46
Latham .... Pulmonary Consumption 46
McKisack .. Dictionary of Medical Diagnosis..... 46
Starr ..... Nervous Diseases 46
Tuckey .... Hypnotism 46

BALE, SONS, & DANIELSSON:—
McCulloch .. Stray Leaves, &c., on Cancer 12

CAMBRIDGE UNIV. PRESS, &c.:—
Blomstrika 10

CASSELL & CO.:—
Bruce ..... Materia Medica, &c..... 11
Harris ..... Electrical Treatment .. 11
Morris, M., & Dore ..... Light and X-Ray Treatment of Skin Diseases 1
Thomson.... Diseases of the Nervous System 11
Treves, Sir F. Surgical Applied Anatomy..... 11
Whitelegge & Newman Hygiene, &c. 11

CHURCHILL, J. & A.:—
Cripps ..... Cancer of the Rectum .. 10
" ..... Diseases of the Rectum 10

CORNISH BROS.:—
Sawyer, Sir J. Maladies of the Heart.. 10
" Contributions to Practical Medicine 10
" Insomnia 10

FROWDE AND HODDER & STOUGHTON:—
Adamson.... Skin Affections in Childhood 5
Corner & Pinches .. Operations of General Practice 5

PAGE

FROWDE—(Continued).
Collected Writings of Lord Lister 5
Guthrie .... Functional Nervous Disorders in Childhood .. 5
Mackenzie .. Heart Diseases 5
Waggett .... Diseases of the Nose.... 5
Williamson.. Diseases of the Spinal Cord 5
Writings of the late Sir W. Broadbent 5

GLAISHER:—
Herschell .. Electrical Methods 13
Lloyd ..... Hay Fever, &c. 12
Prendergast. Anæsthetic Technique.. 12
Taylor ..... Acute Pneumonia 12

GRIFFIN & CO.:—
Brooke..... Tropical Medicine, &c. 10
Oppenheimer Toxines and Antitoxines 10
West ..... Organs of Respiration.. 10

LEWIS:—
Allen ..... Opsonic Method of Treatment 6
Barrett..... Dental Surgery 7
Barton ..... Guide to the Administration of Ethyl Chloride 6
Beevor ..... Diseases of the Nervous System 7
Buxton..... Anæsthetics 7
Carter ..... Elements of Practical Medicine 6
Higgens .... Ophthalmic Practice .. 7
Jones..... Medical Electricity 7
Kenwood.... Public Health Laboratory Work 7
Lewers..... Diseases of Women 7
Murrell .... Cases of Poisoning 8
Oliver ..... Studies in Blood-Pressure 6
" ..... Study of the Blood 6
Parkes & Kenwood.. Hygiene and Public Health 7
Power ..... Surgical Diseases of Children 7
Rawling .... Landmarks, &c. 6
Roberts .... Theory and Practice of Medicine 6
Savage..... Bacteriological Examination of Water Supplies 6
Shuttleworth Mentally - Deficient Children 6
Swanzy & Werner.... Diseases of the Eye 6
Tilley ..... Diseases of the Nose and Throat 7

LONGMANS, GREEN & CO.:—
Goodsall & Miles .... Diseases of the Anus and Rectum 10
Gray ..... Anatomy 8

PAGE

MACMILLAN & CO.:—
Ballance .... Surgery of the Brain .. 10
Lockwood .. Appendicitis..... 10

RENSHAW:—
Wood ..... Application of Trusses 8

SAUNDERS COMPANY:—
Andrus ..... Practice of Medicine .. 3
Ashton ..... Practice of Gynecology 3
Boston ..... Clinical Diagnosis..... 3
DaCosta ..... Surgery 3
deSchweinitz Diseases of the Eye 3
Heisler ..... Embryology..... 3
Hektoen .... Pathology..... 3
Hirst ..... Obstetrics 3
Howell..... Physiology 3
Stelwagon .. On the Skin..... 3
Stengel..... Pathology..... 3
Stevens ... Practice of Medicine 3
Webster .... Diseases of Women 3
Wells ..... Chemical Pathology..... 3

SIMPKIN, MARSHALL & CO.:—
Gattie ..... Lunacy Practice 10

SMITH, ELDER & CO.:—
Barnes ..... Midwifery for Midwives 11
Chance..... Bodily Deformities 11
Cheadle .... Artificial Feeding 11
Clinical Manual for the Study of Medical Cases 11
Ellis ..... Demonstrations of Anatomy 11
Juler..... Ophthalmic Science, &c. 11
Keetley .... Orthopædic Surgery.... 6
" .... Gastric Ulcers 6
" .... Complicated Fractures 6
Lawson .... Diseases, &c., of the Eye 11
Leftwich .... Index of Symptoms 11
Marshall .... Vertebrate Embryology 11
Marshall & Hurst .... Practical Zoology 11
Schäfer .... Practical Histology 11
Tirard ..... Albuminuria, &c. 6

WRIGHT & CO. (BRISTOL):—
Dowse ..... Massage and Electricity 6
First Aid Wall Diagrams 6
Hall ..... Medical Examination for Life Assurance..... 6
Maddox .... Ophthal. Prisms, &c. .. 6
Schlesinger.. Indications for Operation 6
Warwick & Tunstall .. First Aid to the Injured and Sick 6

MEDICAL LIBRARIES, &c.:—
Baker—Bargains in Books..... 12
Behnke—Stammering 6
Glaisher, Wigmore-street—
Publishers' Remainders 12
Seymour—How to Speak Effectively.. 12

OFFICIAL AND GENERAL ANNOUNCEMENTS.

COVER.

OFFICIAL NOTICES:—
Royal Society of Medicine 1

APPOINTMENTS VACANT:—
Army Medical Service 80
Benenden Sanatorium 80
Bloomsbury Dispensary 82
Blundell & Rigby, Strand..... 82
Bristol General Hospital..... 81
Bucks County Lunatic Asylum 81
Cardiff Infirmary 82
Carlow District Asylum 80
City of London Hospital for Diseases of the Chest 80
Clinical Research Association 82
County Borough of Huddersfield..... 82
County Lunatic Asylum, Lancaster .. 81
Crichton Royal Institution, Dumfries 81
Derbyshire Royal Infirmary..... 80
Dreadnought Hospital, Greenwich.... 81
East Suffolk and Ipswich Hospital .. 81
Fermanagh County Hos., Enniskillen 81
Glamorgan County Asylum, Bridgend 81
Hospital for Consumption, Brompton 80
Hospital for Sick Children, Newcastle-on-Tyne 81
Hos. Francois, Shaftesbury-avenue .. 80
Huddersfield Infirmary 81
Kettering and District General Hos... 81
King Edward VII. Sanatorium, Midhurst..... 80
Lincoln General Dispensary 82
London County Asylum, Horton 80
London Hospital, Whitechapel 81
Macclesfield General Infirmary 81
Manchester Corporation Tramways .. 81
Millier General Hospital for South-East London..... 80
Norfolk and Norwich Hospital 82
Nottingham City Asylum 82
Nottingham General Hospital..... 82
Parish of Leicester Poor Law Infirmary..... 82
Parish of St. Giles, Camberwell, Infirmary..... 82
Royal Ear Hospital, Soho 81
Royal Surrey County Hospital, Guildford 81
Samaritan Free Hospital for Women, Marylebone-road 81
Sheffield Union Hospital..... 81

APPOINTMENTS—(Continued).
Society of Apothecaries of London .. 81
South Devon and East Cornwall Hospital, Plymouth 82
St. George's Hospital 81
Sunderland Infirmary 81
Swansea General Hospital..... 82
Wolverhampton and Staffordshire General Hospital 80

ASSISTANCIES, MEDICAL 90

ASYLUMS, HOMES, &c.:—
Ashwood House, Kingswinford 71
Balibrook House, Bath 71
Barnsley Hall, Bromsgrove 71
Barnwood House Hospital 72
Bishopstone House, Bedford..... 71
Blackheath Invalid Home..... 79
Buntingford House Retreat, Buntingford 74
Buxton House, Earls-Colne 79
Camberwell House, Peckham-road.... 79
Cheadle Royal 71
Clarence Lodge, Clapham-park 79
Coppice, The, Nottingham 72
Crooksbury Sanatorium, Surrey..... 74
Dalrymple House, Rickmansworth .. 75
Dartmoor Sanatorium 75
Dinsdale Park, near Darlington 71
Dr., Headcorn 80
Earlswood Asylum, Redhill 74
East Anglian Sanatorium, Nayland .. 75
Eleonoren Hospiz, Bad Nauheim 77
Fairford Retreat, Gloucestershire 71
Flower House, Catford..... 72
Ghyll Retreat, Cockermouth 75
Grove House, Church Stretton 72
Grove, The, Catton, Norwich 72
Harley Association, New Cavendish-street 80
Haydock Lodge, Newton-le-Willows 75
Reigham Hall, Norwich..... 71
Hitch, Mrs., Hoilington 72
Home for Epileptics, Maghull 79
Hon. Secretary, Outer Temple 80
Invernith Lodge Retreat, Colinsburgh 75
Kingsdown House, Box 71
Lady Superintendent, Streatham..... 79
Lawson, Nordrach-on-Dee, Banchory 74
London Fever Hospital, Islington 71
London Open Air Sanatorium, Wokingham 74
Malling-place, Kent 71

ASYLUMS—(Continued).
Manor Valley Sanatorium, Peebles-shire 77
Melbourne House, Leicester 72
Middleton Hall, Co. Durham..... 71
Miss Goffe's Nursing Home, North Finchley 79
Moat House, Tamworth 72
Newmains Retreat, Lanarkshire..... 73
Nordrach-upon-Mendip Sanatorium .. 74
Northlands Retreat, Wandsworth.... 70
Northumberland House, Finsbury-pk. 79
Northwoods House, Winterbourne.... 73
Norwood Sanatorium 75
No. 116, L.O., Strand..... 79
No. 471, L.O., Strand..... 79
No. 575, L.O., Strand..... 80
Osea Island, Heybridge 70
Parkfield, Burgess Hill 80
Peckham House, Peckham-road 73
Physician, Wimbledon..... 79
Plas-yn-Dinas, Merionethshire..... 75
Plympton House, South Devon 72
Ringwood & Inge, Haslemere 79
Silver Birches, Epsom..... 79
Springfield House Private Asylum, Bedford 72
St. Andrew's Hospital, Northampton 72
St. Luke's Hospital, E.C..... 71
Stocker, Craven-street 79
Stretton House, Church Stretton 72
Sunnyside, Macclesfield 79
Tallerman Treatment Institute 79
Tower House, Leicester 72
Vale of Clwyd Sanatorium..... 75
Warneford Asylum, Oxford 71
Wonford House, Exeter 72
Wye House, Buxton 72
Yarrow Convalescent Home, Broadstairs 73

FINANCIAL, &c.:—
Birkbeck Bank 69
Equitable Reversionary Interest Soc. 69

HEALTH RESORTS, BATHS, &c.:—
Aberystwyth, the Biarritz of Wales .. 75
Badgastein..... 77
Bad Nauheim 77
Bath of Ems 76
Cheltenham Spa 76
Chur 76
Harrogate 79
Homburg 77

HEALTH RESORTS—(Continued).
Leysin, Switzerland 76
Neuenahr 76
Plombières..... 76
Smedley's, Matlock 6
St. George's Nauheim Institution.... 77
St. James's Electric, Light, and Pine Baths 76
Tarasp-Schuls 76
The Hydro, Harrogate..... 70
Woodhall Spa Baths..... 76

HOMES WANTED:—
No. 608, L.O., Strand..... 80

HOTELS:—
Bad Nauheim—Park Hotel 77
Barton Court Hotel, New Milton 79
Ilfracombe Hotel 79

HOUSE & ESTATE AGENTS:—
Abraham, Southampton 88
Biver & Co., Regent street..... 88
Mabbett & Edge, Mount-street..... 88
No. 587, L.O., Strand..... 88
No. 599, L.O., Strand..... 88
No. 621, L.O., Strand..... 88
Warman, Chancery-lane..... 88
Young & Co., Cadman-street 88
Consulting-rooms:—
Medious, Piccadilly 88
M., Finsbury-circus 88
No. 550, L.O., Strand..... 89
No. 586, L.O., Strand..... 89
No. 572, L.O., Strand..... 88
Q., Wigmore-street 88
T. K., Nicholas-lane 88

LIFE & FIRE ASSURANCES:—
Prudential 69

MASSAGE:—
No. 598, L.O., Strand..... 80

MEDICAL ACCOUNTANTS, &c.:—
Turner 89

MEDICAL AGENTS:—
Aked & Aked 88
Fieldhall, Limited 88
Manchester Medical Agency 87
Manchester Medical Association..... 87

(For continuation of Index to Official and General Announcements, and Trade and Miscellaneous Advertisements, see page 4.)

The Goulstonian Lectures

ON

THE INFLUENCE OF PREGNANCY UPON CERTAIN MEDICAL DISEASES, AND OF CERTAIN MEDICAL DISEASES UPON PREGNANCY.

Delivered before the Royal College of Physicians of London on March 17th, 19th, and 24th, 1908,

BY HERBERT FRENCH, M.A., M.D. OXON., F.R.C.P. LOND.,

ASSISTANT PHYSICIAN TO GUY'S HOSPITAL.

LECTURE I.

Delivered on March 17th.

INTRODUCTION.

MR. PRESIDENT AND GENTLEMEN,—The title of these lectures perhaps requires a few words of explanation in case it might be at all misleading. The subjects that it is proposed to discuss will not be dealt with from an obstetrical point of view, but purely from their medical or pathological aspect. The gynæcologist and the obstetrician must naturally be interested in the medical diseases which may arise in a pregnant woman, and in some cases the treatment in these circumstances may be gynæcological or obstetrical rather than medical. I have not the ability to deal with gynæcological or obstetrical treatment and shall therefore say nothing about it. On the other hand, the fact that a medical disease arises, or is already present, when a patient has become pregnant by no means necessarily implies that the immediate treatment of the patient should be carried out from a gynæcological or obstetrical standpoint. It is true that there are conditions under which the aid of the obstetric physician may be required to terminate the pregnancy artificially, and it is also true that similar aid will be essential when the pregnancy reaches its natural term, or earlier if any accidental termination to it should arise. There are, however, many conditions in which the pregnancy may be, as it were, an accidental concomitant or complication of the medical disease; there are other conditions in which pregnancy is actually the cause of the medical disease, and many of these cases are of direct interest to the physician.

If in a given case it should be decided that the pregnancy may be allowed to run its natural course, the responsibility for the patient's health would rest with the physician until such time as the pregnancy either reached its term or ceased to be itself normal. It is, therefore, essential that the physician should be fully acquainted with the probable effects both of the pregnancy upon the medical disease from which the patient may be suffering and also of the medical disease upon the pregnancy. Two examples may perhaps assist this explanation. Suppose, for instance, that a pregnant woman contracts typhoid fever. Three questions at once arise—namely, Is the fact that this patient is pregnant likely to make the typhoid fever more severe than it otherwise would be? Is the patient's pregnancy likely to terminate abnormally on account of the typhoid fever? Ought the treatment of this patient to be different in any way from that of other persons suffering from typhoid fever? It is clear that, so far at least as the typhoid fever is concerned, the treatment should be carried out by those most familiar with typhoid fever if it can be shown that the treatment of such cases ought to be upon the same lines as that of non-pregnant persons suffering from the disease. So far as the typhoid fever is concerned the pregnancy may be an accidental concomitant, but it is important to the physician to know what is likely to be the result of the combination.

As my second example, may I take that of a patient who presents herself with that peculiar skin eruption, herpes gestationis? If she were not pregnant she would not have the eruption; but having the eruption the immediate treatment of the patient for her skin trouble is probably best carried out by one who is most familiar with skin diseases, provided it is known that the pregnancy is not likely to run an abnormal course.

It is only from the medical point of view that I am in a position to discuss the mutual effects of pregnancy and medical diseases; and seeing that there are few medical diseases that cannot either themselves arise during pregnancy or else permit of pregnancy occurring when they are already in existence, it is clear that the whole field cannot be covered in three lectures. I am obliged therefore to restrict the discussion to a few affections which appear to possess particular interest.

In the first place, there are certain medical diseases for which pregnancy appears to be itself directly responsible. One of the most definite of these, comparatively rare no doubt, yet full of interest from a pathological point of view, is

HERPES GESTATIONIS.

This disease is apparently related to pemphigus, to hydroa, to erythema bullosum, and to dermatitis herpetiformis or Dühring's disease. The eruption is variable in the extent to which erythematous patches, pinkish-red papules, and wheals not unlike those of urticaria are present, but to whatever degree these may coexist the distinctive lesion is vesicular or bullous. Sometimes the blebs are comparatively large and widely separated and they are preceded by more or less erythema, in which case the eruption is very similar to that of erythema bullosum. More rarely the bullæ occur before any erythema is obvious and pemphigus is simulated. In other cases again the vesicles are smaller and they may be arranged in groups upon an inflamed base like those of herpes zoster—the herpetiform variety. The cases that I have seen have exhibited a mixed condition, the majority of the vesicles being only moderate in size, with here and there amongst them a few that were large enough to be called bullæ; the smaller vesicles have shown a slight tendency to be grouped together as in herpes, but it is not often that they are confluent or that a single group contains as many vesicles crowded together as is the case in well-marked herpes zoster. The vesicles, whether large or small, have been preceded by an itching erythema which has in the beginning been smooth but which has rapidly become first papular and then vesicular. The eruption itself has been more like that of dermatitis herpetiformis than anything else, the chief clinical distinction between the two being solely the direct relationship of herpes gestationis to pregnancy.

An illustrative case.[1]—The following is an illustrative case. The patient, 41 years of age, was under the care of Sir Cooper Perry in Guy's Hospital, and was sufficiently ill to require treatment in bed for over a month. Her history was briefly this: She was the only member of her family troubled with the complaint. She had been perfectly well up to, and for some time after, her marriage, when she was 23 years old. She had had seven living children and four miscarriages. The first miscarriage occurred after she had had three living children and it was then that she suffered from her skin trouble for the first time. Since then, though quite free from it between whiles, she had had the eruption with each successive pregnancy, the itching erythema, vesicles, and bullæ recurring constantly upon her hands and arms and sometimes upon her trunk, legs, and feet. She was three months' pregnant at the time of her admission to the hospital; one month previously her ninth attack of herpes gestationis began with pains and irritation on the hands and forearms, rapidly followed by the eruption of discrete water-blisters of moderate size which, owing to scratching, broke down and discharged clear fluid. Each bleb dried up and healed in about a week, leaving a reddish mark which was slow to fade, whilst fresh vesicles kept on appearing daily in the neighbourhood. There was no pyrexia and no marked constitutional disturbance beyond what could be attributed to broken sleep, the result of irritation in the affected areas of skin. The arms and hands had been involved for three weeks before vesicles developed elsewhere, and then without apparent cause a precisely similar eruption came out upon the face and ears, spreading thence to the chest, abdomen, buttocks, lower limbs, and feet. The number of blebs upon the trunk was never so great as that upon the limbs. Flexor and extensor surfaces were equally involved and the parts were not only irritable but also painful. The pains were doubtless due, in part at least, to the sore places being made worse by scratching. Left to themselves the blebs healed without breach of surface and without pyodermia. Some of the vesicles that had been interfered with either bled or became pustular; the latter change

[1] See also C. A. Douglas Bryan, THE LANCET, June 4th, 1904, p. 1570, and numerous papers in the journals of dermatology.

was always consequent upon inoculation by scratching. There was no involvement of mucous membranes, though there are doubtless cases in which the buccal mucosa and the colon may be affected, as has been observed in some instances of erythema bullosum. Under treatment by the yellow oxide of mercury ointment externally and by Fowler's solution of arsenic internally, together with rest in bed, light diet, and laxatives, there was some abatement in the skin trouble after about three weeks, but even during the continuance of the treatment a severe relapse ensued whilst the patient was still in the hospital. The trouble, waxing and waning in this way, persisted until the child was born, living, at term, and then, as on eight former occasions, the herpes gestationis rapidly got well by itself.

This case is fairly typical, and there are but few points to add before passing on to consider the pathology of the condition. It is not only possible for a patient like the above to have no trouble during the first pregnancies and then to develop the disease in later ones, but it is also possible that having had the skin disease in one pregnancy she may escape it at the next and yet develop it again in a later one. The time of onset is usually of the accelerating type, that is to say, in successive pregnancies it is likely that the date at which the herpes gestationis will reappear is a little earlier each time. It is, moreover, probable that the attacks will tend to become severer rather than the reverse. A few cases exhibit severe constitutional disturbance, with pyrexia and loss of appetite. It is, moreover, a curious fact that whereas the majority of the patients develop the trouble during pregnancy and lose it during the puerperium or soon after, it occasionally happens, as in another case under the care of Sir Cooper Perry, that the eruption first appears after labour, lasts a variable number of weeks or months, and then goes away spontaneously not to reappear until just after another child has been born.[2]

Pigmentation.—Another point that may be of interest perhaps is the increased pigmentation of the skin that is apt to be left after each attack. The pigmentation may be generalised all over the body in much the same way as it is in severe cases of Addison's disease. Usually, however, it is most marked in those parts of the skin in which the eruption itself has been worst. It is well known that uterine disorders are apt to cause pigmentation—the uterine chloasma—but this is, as a rule, much more marked upon the face, especially upon the forehead and around the eyes, than it is elsewhere. There is little or no evidence that the pigmentation which follows herpes gestationis is in any way allied to uterine chloasma; indeed, there is seldom any obvious uterine derangement in the patients who suffer from it. The chief causes of the pigmentation are probably, first, the constant scratching or rubbing that the irritation in the affected parts gives rise to, just as it does in phtheiriasis, where pigmentation also becomes well marked as time goes on; and secondly, the arsenic which is administered in most of the cases. The darkening of the skin is so great in some patients that they look as if they might be of coloured extraction. There is apparently no record as to whether or not the pigmentation ever occurs upon the buccal mucosa as well as upon the skin, but between the attacks of herpes gestationis it would sometimes not be difficult to mistake the general appearance for that of Addison's disease if the history of the skin trouble were concealed.

Pathology.—The direct relationship of the disease to pregnancy is very remarkable. It seems to be the only point distinguishing it from dermatitis herpetiformis. I should like in this connexion to say a few words about eosinophilia.

Eosinophilia.—It is often stated in a general way that eosinophilia occurs in a large number of skin diseases. To test this I have made differential leucocyte counts in a number of all kinds of eruptions, and in the great majority of the commoner varieties there is no eosinophilia at all.[3] If it be granted that nothing less than 5 per cent. of coarsely granular eosinophile cells in the blood can be termed eosinophilia, it is quite exceptional for cases of eczema, psoriasis, and the like to exhibit it. The reverse is true of the bullous dermatoses, however. There are, of course, a good many cases of pemphigus in which no eosinophilia is found at a single examination, and the percentage of coarsely granular eosinophile corpuscles varies not only in different individuals suffering from the same disease but also in the same individuals at different times. Nevertheless, in patients suffering from pemphigus or from dermatitis herpetiformis, eosinophilia is the rule rather than the exception, as Bettmann, Darier, and others have pointed out. The degree of eosinophilia in the blood is moderate rather than great, the coarsely granular eosinophile corpuscles numbering something between 5 per cent. and 15 per cent. of all the leucocytes in typical cases.

It is worthy of note that the eosinophilia is not in the blood alone, but that the eosinophile corpuscles are also present in the inter-epithelial lymphatic spaces, where they may be seen in the microscopical sections of the skin; and, further, that in the fluid of the blebs themselves there are leucocytes, of which over 70 per cent. may be of the eosinophile variety. It is recorded as a curious fact that, although the fluid in the natural blebs contains so large a preponderance of eosinophile cells, there is no such preponderance of these corpuscles in the fluid of an artificial blister made upon the patient's skin, by cantharides for example.

Herpes gestationis agrees with the other bullous dermatoses in exhibiting eosinophilia. The differential leucocyte count in the case mentioned above was as follows: Small lymphocytes, 11 per cent.; large hyaline lymphocytes, 4 per cent.; polymorphonuclear cells, 71 per cent.; and coarsely granular eosinophile cells, 14 per cent. The significance of the eosinophilia is obscure. There are, of course, three main groups of conditions in which eosinophilia occurs. These are: First, those parasitic affections in which there is constitutional disturbance, notably in patients suffering from ankylostomum duodenale, trichina spiralis, filaria sanguinis hominis, bilharzia hæmatobia, hydatids, and sometimes with tæniæ and scabies, but not with the milder parasitic affections such as those of trichocephalus dispar, oxyuris vermicularis, ascaris lumbricoides, or tinea tonsurans and allied trichophytic affections. Secondly, true spasmodic asthma, in which eosinophilia is found during the attacks but not between them. Thirdly, certain skin diseases, chiefly the bullous dermatoses, as mentioned above. It is difficult to say why eosinophilia should be a prominent feature in these three groups of conditions and not in a great many other affections. It is thought that a poison of some kind is at the bottom of it in the parasitic diseases; that a toxin can produce a local eosinophilia was shown in the Johns Hopkins Hospital where the vascular spaces around appendicular abscesses were demonstrated to be full of eosinophile corpuscles although there was no excess of eosinophile cells in the general circulation. True asthma, however, is usually regarded as primarily a nervous phenomenon, and it is not at all clear why it should be associated with eosinophilia. It may be that there is an unknown poison which starts the neuro-muscular spasm in the bronchioles; otherwise it would seem that eosinophilia may have a nervous as well as a toxic origin.

The eosinophilia of skin diseases has been so little studied that it does not seem to be known whether the blood contains the excess of eosinophile cells before the eruption comes out or whether the bullæ always precede the eosinophilia. If the former were the case, then both the eosinophilia and the vesicles would probably have a common cause, whether that were nervous or toxic. The general opinion is, however, that the eosinophilia is the result of the skin lesion, due perhaps to the absorption of something from the skin in a way that would be comparable to the eosinophilia of ankylostomiasis, where there is supposed to be absorption of some toxin from the bowel. This raises the question of the pathology of the bullous dermatoses in general and of herpes gestationis in particular. It seems fairly clear that their causes arise within the body and that the lesions are not due to agents acting directly upon the skin from without. Bacteriological investigations have proved negative, the only micro-organisms that have been cultivated from the blebs being such as are readily explained as derived from accidental contamination from the skin.

Histology.—The actual process by which the vesicle or bulla develops seems to be as follows. There is a local dilatation of the papillary and sub-papillary blood-vessels, and an almost simultaneous increase in the quantity of lymph in the spaces around the prickle-cells of the epidermis. The local erythema is caused by the vascular dilatation and the itching is doubtless due to the tension put upon the cutaneous nerve endings by the sudden increase in the quantity of pericellular lymph. There is no proliferation of the cells themselves, such as occurs in eczema, though

[2] For a case recurring at menstrual periods, see Douglas Bryan, loc. cit.

[3] Herbert French: Eosinophilia in Skin Diseases, Guy's Hospital Reports, 1903.

leucocytes may accumulate in the part by diapedesis. The pericellular lymph goes on increasing in quantity until the protoplasmic bridges between the prickle-cells are mechanically torn asunder; larger and larger numbers of dilated intercellular spaces in this way become united into a single cavity and a vesicle results. If the lymphatic dilatation is spread uniformly over a comparatively wide area, a single large bulla is formed; if within the same area the dilatation is irregularly distributed with several maximum points, a group of smaller vesicles is produced; if the original area of vascular dilatation is small, a single vesicle, too small to be termed a bulla, results. The size of the bleb is therefore to some extent an accident. The depth at which the vesicles form is also more or less accidental; in some cases the fluid accumulates quite close beneath the stratum corneum; in others, so deeply that only the papillary layer separates it from the corium. The transitional layer is the level at which the lymph is able to separate the cells with greatest ease, so that it is here that the vesicle or bulla originates most commonly. The surrounding prickle-cells swell up, become more or less spherical, and assume an appearance which led Professor Unna to term them "balloon cells." Notwithstanding their altered appearance, they still retain their nuclei and their vitality for a long while, though many of them ultimately become more and more swollen and homogeneous, and finally break up.

Allied conditions.[4]—It would not, I think, be surprising if the degree of lymph accumulation between the prickle-cells sometimes stopped short of vesicle formation. Local patches of erythema, accompanied by much itching and even pain, would then be the only features of the disease, and, as Sir Cooper Perry has pointed out to me, there are not a few cases in which women during each successive pregnancy suffer from skin trouble of this kind. The characters of the lesion are then such as lead to a diagnosis of pruritus or urticaria, as the case may be. The relationship between urticaria and vesicular or bullous eruptions is well seen in young children. Infants have so tender a skin that ordinary urticaria in them not infrequently ends in the production of vesicles. Some of the cases of pruritus or urticaria of pregnancy are very probably examples of abortive or incomplete herpes gestationis. It would be very interesting to know whether or not there is eosinophilia in these patients too, but I have not yet been able to make any investigations upon this point.

The changes described above suggest that the trouble arises from there being something the matter within the vessels themselves. It would seem that the trouble is either primarily nervous or else that there is some poison circulating within the vessels at the time. The generally accepted view appears to be that the disease is primarily nervous, in which case it would be analogous to herpes zoster, or more correctly perhaps with factitious urticaria, or with angeioneurotic œdema. On the other hand, by analogy with the urticaria which sometimes follows the ingestion of certain foods, or with the vesicular or pustular eruptions that may follow the administration of certain drugs, such as the bromide or the iodide of potassium, it is at least quite as likely that there is a toxic agent or poison concerned in herpes gestationis. If the disease were purely the result of an angeioneurosis it would seem surprising that the eruption should so often be restricted entirely to the times of pregnancy. It is true that cases have been recorded in which the attacks came on apart from, as well as during, pregnancy, but this is distinctly unusual, and such cases would be termed true dermatitis herpetiformis rather than the distinct variety we are now speaking of. Pregnancy seems to be an essential cause of the latter. The patients are not necessarily of nervous disposition; the lady whose case has been given above was a most sensible woman; there was no history of nervous disorder in her family, nor of nervous shock nor of anything of that kind in herself. Moreover, one cannot trace any hereditary tendency to the disease, such as is well known in cases of angeioneurotic œdema. It is not at present possible to bring forward any conclusive arguments, however, one way or the other as to whether herpes gestationis is primarily nervous or primarily toxic in origin. No toxin is known, but this does not prove that none is present. It is even possible that no abnormal substance is present in these cases at all, but that the patients are unduly susceptible to some compound which is a normal metabolic product of the pregnant state. The idiosyncrasy of some persons in regard to strawberries might be used as a comparison. Most people can partake of this fruit in moderation with impunity, but a few cannot eat a single strawberry without suffering acutely from urticaria.

The pregnancy itself is not interfered with by the skin disease provided that suitable treatment is adopted to prevent pyodermia and to enable the patient to get a sufficiency of sleep. The children are born living and healthy, and it seems that the offspring of a mother who has been subject to the complaint are not particularly liable to any of the bullous dermatoses, nor are the females more liable than others to herpes gestationis. It is, however, very difficult to obtain direct evidence on this point, because few physicians see any large number of the cases and fewer still are likely to pay particular attention to the point in question.

This may, perhaps, be a good opportunity for mentioning a subject which Dr. Lauriston E. Shaw has spoken to me about sometimes—namely, that of the necessity for collective investigations being made upon special clinical and pathological points of this kind. There are many questions which, owing to the smallness of the number of cases that any individual is likely to see, can only be elucidated by collective inquiry. The Clinical Society, the Royal Medical and Chirurgical Society, and other similar bodies have from time to time instituted inquiries of the kind, but for the most part the data have been collected *after* the cases have been seen—from ward reports, post mortem records, and so forth. The very points upon which one wishes information are often not referred to at all in these, simply because the student or other person who wrote the report had not the knowledge or the interest to make a note about it. There are many conditions in which those who, having made a study of the cases up to a certain point, and having come across difficulties upon which they can nowhere find fuller information, could advise others as to special points to be upon the watch for and to pay particular attention to in *future* cases as they come under observation. The selection of the questions that might seem suitable for collective investigation in this way must necessarily lie with those who already know much. Dr. Mahomed when he was alive initiated a system of the kind but it died with him. The anatomists have a list of points upon which collective investigation is required, and in the dissecting room at Oxford there was a book in which were entered certain features of the anatomy of the vermiform appendix in each cadaver that was dissected, in order that by the accumulation of these and of a similar series of records from various other dissecting rooms certain debated points as to this particular part of anatomy might finally be settled. Some similar scheme might be possible as an assistance in settling debated points in medicine a few at a time. It would require a central authority for the selection of the points to be investigated, and the collaboration of all physicians at all hospitals would need to be sought. The central authority would doubtless be a permanent committee of physicians, and if the scheme were feasible at all the selection of such a committee for the direction of collective inquiry into obscure or debatable points in medicine and pathology would best, perhaps, be made under the auspices of either the Association of Physicians of Great Britain and Ireland or else of the Royal Society of Medicine of London. If Dr. Shaw's suggestion commends itself to others it should not be a difficult matter for a beginning to be made.

One might be asked, for example, whether an unmarried lady who had suffered from severe dermatitis herpetiformis previously to marriage would be likely to have still worse attacks of this disease should she marry and become pregnant. There are, so far as can be ascertained, no statistics to help one to answer such a query, important though it might be in some particular case. The general impression that is left upon one's mind after seeing a few cases and reading of as many more as one can find is that dermatitis herpetiformis and herpes gestationis, though in many respects so similar to one another, are yet sufficiently different to warrant the statement that pregnancy is by no means likely to bring on an attack of the former, though almost certain to cause a repetition of the latter. Again, one might be asked whether a patient who has suffered from dermatitis herpetiformis before marriage or from herpes gestationis after marriage would be likely to transmit the tendency to either disease to her children. As has been mentioned, one's general impression is that there is no

[4] See also H. Radcliffe Crocker, Lettsomian lectures upon the Conditions which Modify the Characters of Inflammations of the Skin and their Influence on Treatment, Lecture II, THE LANCET, March 7th, 1903, p. 643.

likelihood whatever of such transmission, but it would be much more satisfactory if there were clear facts to base such an opinion upon, and such facts could best be accumulated by a collective inquiry.

OTHER SKIN DISEASES IN RELATION TO PREGNANCY.—IMPETIGO HERPETIFORMIS.

It has been suggested above that the pruritus, erythema, abnormal pigmentation, and urticaria which may develop during pregnancy may be regarded as minor manifestations of that which, in its full development, is herpes gestationis. There is another skin lesion known as impetigo herpetiformis which may perhaps be regarded as coming at the opposite extreme of the same series; that is to say, it seems to be a virulent degree of herpes gestationis, dangerous to life. Fortunately, the disease is very rare and a short account of it will suffice. According to Dr. J. F. Payne[5] the majority of the cases have been met with on the continent and all but two of them have been in pregnant women. The eruption is not vesicular but pustular, groups of small pustules upon a red swollen base from half an inch to one inch in diameter appearing first in the groins, arm-pits, and mammary regions, and thence spreading until the whole of the body may be covered. The pustules dry up with the formation of scabby crusts, fresh pustules appear in the adjacent skin, and so on, the process extending in a circinate manner. No ulceration results but there is severe constitutional disturbance. The patient has continuous fever of the remittent type and with each new crop of the eruption there may be an exacerbation of the pyrexia with occasional rigors. Vomiting and delirium are usual and the patient nearly always dies within a few months. Parturition does not prevent the fatal termination. Cases of recovery from one attack have been recorded in which a succeeding pregnancy led to a return of the impetigo herpetiformis with fatal result.

The post-mortem examinations have shown no evidence of pyæmic or septicæmic infection. The general opinion appears to be that both the skin trouble and the constitutional disturbances are the result of an internal toxæmia, and it seems reasonable to suppose that a similar toxæmia rather than a primarily nervous cause is at the root of the whole series of lesions that have been mentioned, from apparently simple pruritus at the one end of the chain to herpes gestationis and to impetigo herpetiformis at the other.

There are only two other skin diseases upon which pregnancy seems to exert any definite influence. These are eczema and psoriasis, and it is only upon the latter that the effect of pregnancy is at all marked.

ECZEMA AND PREGNANCY.

Eczema is so very erratic in its behaviour that it is always very difficult to attribute any exacerbation in it to any particular cause. It is true that certain women, who never suffer from eczema otherwise, may develop a skin eruption which is apparently an eczema during pregnancy. The skin lesion may be papular or it may be vesicular—eczema papulosum or eczema madidans as the case may be; but when it occurs only during pregnancy and not between whiles it may be suggested that it is really allied to the urticaria and to the herpes gestationis that we have been discussing rather than to true eczema. The matter could be decided by microscopical examination of sections of the skin to determine whether there was epithelial cell proliferation, as in eczema, or none, as in herpes gestationis, but no histological work appears to have been done upon this particular point and I have had no opportunity of doing any myself. When, on the other hand, a lady is subject to undoubted attacks of eczema apart from pregnancy, it by no means follows that the skin trouble will become worse during the pregnant state; if any general rule can be laid down it would be that the patient's eczema will very likely be mitigated rather than made worse during pregnancy.

PSORIASIS.

Psoriasis is more definite in its behaviour during and after pregnancy. Before the birth of the child the mother, if she be already subject to psoriasis, will either be very much less troubled with it than before, or else will develop a severe exacerbation. It is not possible to give any certain prognosis as to which of these two things will occur, but more patients have their skin disease mitigated than increased whilst they are actually pregnant. On the other hand, the effect of lactation upon psoriasis is almost invariably bad. The eruption is liable to increase during the puerperium in any case, but if the mother suckles her child she is almost certain to develop a very severe attack of the psoriasis. This, therefore, is one of the conditions under which the mother ought not to suckle her child. Artificial feeding of the infant should be adopted from the beginning and immediate steps be taken to dry the mother's breasts.

[5] Clifford Allbutt: System of Medicine.

THE PYELONEPHRITIS OF PREGNANCY.

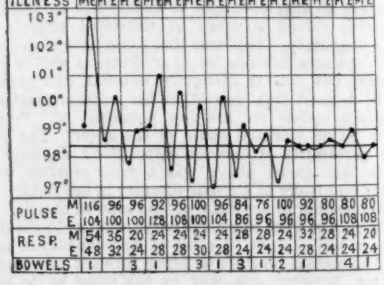
Leaving the skin diseases now, we may pass on to the discussion of a condition in which, although the pathology is of quite a different kind, pregnancy again appears to be an important factor in the causation of the trouble. This is the pyelonephritis which of late years has been recognised with increasing frequency in pregnant women. Mr. G. Bellingham Smith has recorded several cases in the *Journal of Obstetrics and Gynæcology* (1905) and others in the Guy's Hospital Reports (Vol. LX., 1906); upon the continent and in the English journals there have been a good many papers upon the subject during the last few years, such as those of Reblaub, Jeannin and Cathala, Vinay, Cumston, and others. The observations made previously to 1899 were summarised by Cade in *L'Obstétrique* (Vol. IV., 1899, p. 230).

Illustrative cases.—The following are notes of two cases that have recently been in the medical wards at Guy's Hospital, the one under myself, the other under Dr. A. F. Hertz in the first instance and under Dr. G. Newton Pitt subsequently. These two examples are chosen, not only because they were in the wards almost at the same time but also because they exemplify two very different degrees of the severity of the disease.

CASE 1.—The patient, aged 28 years, had had two children, now aged five and two years respectively; she had had no miscarriage and she was pregnant for the third time when, at the beginning of the fifth month, she was suddenly seized with severe pains round the waist. The suddenness of the onset of the symptoms may be gathered from the fact that she was in her usual health, preparing her husband's midday dinner, when the pain seized her acutely in the loins; she was unable to go on with the dinner preparations; she took to her bed and remained there a fortnight under treatment before she was transferred to the hospital. The pains across the loins persisted all the time, waxing and waning to some extent, but not in such a way as to suggest colic. Vomiting had been frequent, especially after food, and this notwithstanding her diet being milk and soda-water only. In addition to the vomiting there had been severe headaches and upon several occasions rigors. The skin was dry for the first five days but since then there had been copious perspirations.

Upon examination the chief abnormality was in connexion with the right kidney. The abdomen was supple and it moved well with respiration. The kidney could not be palpated, but there was a slight degree of fulness in the right flank, and at a spot just below the right twelfth rib there was acute tenderness on the slightest pressure. The bladder was normal and there was no frequency of micturition. The urine was alkaline, abundant, and of specific gravity 1010; it contained enough albumin to give a marked cloud with the boiling test, and microscopically there were large numbers of pus corpuscles, a few renal cells, and an occasional granular tube cast. A catheter specimen of the urine, examined bacteriologically, gave a pure culture of bacillus coli communis. There had been considerable pyrexia during the fortnight previously to admission. Here is the temperature chart for the first two weeks after admission:—

CHART 1.



Absolute rest in bed and the administration of urotropine were followed by rapid alleviation in the symptoms, and the patient went out in three weeks' time, feeling quite well, though there were still a few pus corpuscles in the urine. It was by her own desire that she went out, and it would certainly be wiser in other similar cases to continue the treatment till term; for within a fortnight she had all her acute symptoms back again and she had to be put back to bed. Fortunately, the severer symptoms of the relapse passed off in a similar way to those of the original attack, but the patient had to be extremely careful for the rest of her time. Her baby was born alive at full term.

The puerperium was normal, and the patient is now strong and well. Her urine has been quite free from pus and from other abnormal constituents since that time.

The above might be termed an ordinary case of the kind; the following is an instance of a much more severe type.

CASE 2.—The patient, aged 24 years, had been married two years and had had no living child, though nearly a year ago she had a miscarriage at the fourth month, followed by rapid and uninterrupted recovery. She was now five and a half months pregnant. She had been perfectly well until a fortnight previously to admission, when, without apparent cause, she suddenly experienced severe pain in the right loin, which persisted and soon extended round from the loin into the right iliac fossa. She had always been subject to constipation, her bowels being moved only twice a week as a rule, and during the fortnight previously to her admission to hospital enemata had been required upon several occasions. Vomiting had occurred only once. The patient's temperature was 103·6° F., her pulse-rate 124, and her respiration-rate 26 per minute. The uterus extended to just above the umbilicus and, owing to the pregnancy, palpation of the rest of the abdomen was difficult. Tenderness was more marked in the right iliac fossa than elsewhere, and there was also cutaneous hyperæsthesia here. The general impression at first sight was that the patient had appendicitis, but more detailed examination showed that the tenderness extended from the right iliac fossa well back into the right loin and as high as the twelfth right rib. There was only slight rigidity of the muscles over the right iliac fossa. If the condition were appendicular the same symptoms might have been caused if the inflammatory trouble had tracked up behind the ascending colon into the perinephric tissue, but the patient herself was quite clear that the pain had started in the right loin and had thence extended into the right iliac fossa, and not *vice versâ* as would most likely have been the case if the trouble had been primarily appendicular. There was no lump to be felt and the right loin was not filled out. The urine was acid, of a specific gravity 1020, and a pale yellow colour. It contained a flocculent deposit of pus, a fair quantity of albumin, and no obvious blood. Microscopically pus cells without crystals abounded in the deposit and there were also many renal cells, both from the pelvis and from the tubules, a few red blood corpuscles, and several tube casts chiefly of the granular variety. The other general systems were natural, except that the vesicular murmur was deficient at the base of the right lung. A diagnosis of pyelonephritis of pregnancy was made.

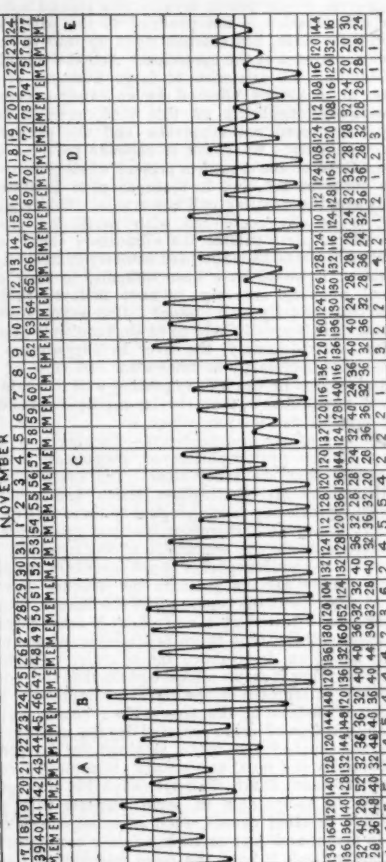
One point of particular interest was that the patient's leucocytes were increased up to 25,000 per cubic millimetre of blood, so that a leucocyte count is apparently of no service in helping to distinguish this disease from appendicular abscess and the like, though it helps in excluding typhoid fever—a condition which the pyrexia might suggest. The temperature chart 2 sufficiently indicates how ill the patient was.

A catheter specimen of the urine, examined bacteriologically, gave a pure culture of bacillus coli communis, and a similar result was obtained upon three subsequent examinations. The vagina and uterus were perfectly healthy and there was no disease of the bladder. The latter was examined with the cystoscope and purulent urine was seen issuing chiefly from the right ureter, but the mucosa of the bladder itself was perfectly normal. There was no dilatation of the vesical orifices of the ureters. The pain in the right loin, with exacerbations accompanied by vomiting, persisted in spite of everything that was done. The pyuria and albuminuria showed no abatement, and a moderate degree of jaundice developed. The patient seemed to be getting steadily worse and at the end of the sixth week she consented to undergo an operation with a view to deciding whether there was anything in the right renal region that could be either removed or drained. Mr. F. J. Steward exposed the kidney and found that it was studded all over with small abscesses. There was no large collection of pus that could be incised and drained, and the patient's condition was so critical—her pulse-rate being over 170—that nephrectomy was out of the question, so the wound was sewn up, a space being left for a gauze drain. The ureter had been felt to be dilated above the bladder, although it had been shown by the cystoscope that the vesical orifice was normal.

The patient steadily improved after the operation, notwithstanding the fact that nothing particular was done. It should be noted that no pus and no urine drained through the lumbar wound for a fortnight after the operation, but that upon the fourteenth day urine came away from it in abundance and continued to do so for some weeks after the patient was convalescent. It is very difficult indeed to say what part the operation itself played in the subsequent recovery, particularly in view of the vaccine treatment that was adopted about the same time. The vaccine was prepared from cultures of bacillus coli communis obtained from the patient's urine. The injections were made at intervals of about a fortnight, as shown upon the temperature chart, and each dose consisted of the products of 500,000,000 bacilli. To judge by the chart the improvement dated from the exploratory operation itself; it was already well marked before urine began to come through the loin, so that actual external drainage of the abscesses in the kidney did not seem to be the deciding factor in the case. The urine continued purulent; indeed, the quantity of pus in the urine was noted as being greater after the operation than it was before it. It is possible that in some way the manipulations which were necessary at the time relieved some pressure that had previously existed upon the right ureter in its pelvic course and that the discharge of urine from the wound in the loin 14 days after the operation was a sign that the obstruction to the ureter had then re-established itself. In any case the patient steadily improved, although pyuria persisted. It was not until the temperature had already been normal for several days that the pregnancy showed any signs of terminating. Without much warning and without difficulty a living premature child was born on the seventy-seventh day of the illness. The puerperium was uneventful. The pus and albumin had both entirely disappeared from the urine within a month of the birth of the child. The wound in the loin had healed up and the patient was soon up and walking about, quite well.

Before passing on to discuss the pathology of the malady in general, stress may perhaps be laid upon three particular points in the above case. The first of these is the dilatation of the ureter that was demonstrated—a dilatation not

CHART 2.



A, Exploration of the kidney. B and D, Eight cubic centimetres of vaccine, 500,000,000. C, Urine began to discharge through the loin; eight cubic centimetres of vaccine, 500,000,000. E, Prematurely delivered of a living child. The temperature on Nov. 25th, 26th, and 27th fluctuated between 97·4° and 100·2° F.; after the 28th it did not rise above 99·0°. The patient began to get up on the 91st day (i.e., on Dec. 8th). She went home well on the 108th day. The temperature remained normal.

beginning at the bladder itself, but just above the bladder about the level of the pelvic brim. The second is the fact that the inflammation is not confined to the pelvis of the kidney in these cases, but extends right up into the cortex, as was demonstrated at the operation. And the third is that notwithstanding the existence of large numbers of small abscesses in a kidney affected by an extreme degree of suppurative pyelonephritis of this kind, uræmia in the ordinary sense need not supervene and the patient may recover completely. No doubt it depends to some extent upon the nature of the organism present whether recovery is likely to occur or not, and in these cases it is always, or nearly always, the bacillus coli communis. This organism, however, is usually accredited with particular virulence when it affects parts outside the alimentary canal; and if the miliary abscesses had not been ocularly demonstrated at the operation it would have been difficult, in view of the subsequent complete recovery, to have believed that such abscesses had actually been present. One wonders whether it is as true as it is usually held to be that multiple abscesses in another organ—namely, the liver in suppurative pylephlebitis—must necessarily be fatal also. In view of these multiple abscesses in the kidney getting well it would seem possible, if not probable, that similar multiple abscesses in the liver may get well too sometimes.

The pathology of the pyelonephritis.—Turning now to the pathology of the pyelonephritis of pregnancy there are certain points that are fairly clear. The cases that have been collected by Mr. Bellingham Smith and others all indicate that previously to the pregnancy there was no renal trouble. It is probable, therefore, that the gravid uterus is a responsible factor in the production of the mischief. It is also clear that the pyelonephritis is not secondary to cystitis, for in practically all the patients the bladder has been healthy, at any rate at the beginning of the disease. Further, it has been demonstrated at the necropsy in some cases, and at operation in others, that there is dilatation of the ureter, beginning about an inch above the bladder. Putting all these facts together it seems almost certain that the sequence of events is: enlargment of the uterus; compression of the ureter against the brim of the true pelvis; consequent difficulty in the ejection of urine secreted by the corresponding kidney; infection of the urine retained in the partially obstructed ureter and renal pelvis; and subsequent spread to the kidney substance itself. The pyelonephritis of pregnancy would thus be comparable in some respects with pyelonephritis due to other causes, such as enlargement of the prostate in man; and just as in the latter case removal of the obstruction tends to cure the renal mischief, so does the birth of the child result in most cases in rapid amelioration and even complete cure of the trouble from which the pregnant woman has suffered.

It is a curious but very definite fact that in nearly every case the right kidney is very much more affected than is the left. In both the patients of whom notes have been given this was so. It is probable that the left kidney does not escape entirely, and indeed there is usually some pain in the left loin as well as in the right, but in the majority of cases the symptoms indicate that the mischief is mainly on the right side. There have been several explanations offered to account for this; perhaps the best is that of Cumston. He states that whilst the pregnant uterus develops its borders come nearer to the ureters, upon which they become pressed. The uterus develops much more to the right than to the left; it also inclines to the right, and besides this it undergoes a rotation on its vertical axis and turns in the direction of its greatest development—that is to say to the right, thus freeing the organs on the left side and exerting a greater compression on those of the right. Be this as it may, the facts that the ureteral obstruction begins at the level of the pelvic brim, that it is in some way due to the pregnant uterus, and that the right ureter is as a rule more obstructed than is the left have been repeatedly demonstrated.

Seeing that partial stenosis of the ureter by the pregnant uterus is generally regarded as the essential predisposing factor to this kind of pyelonephritis, it might very well be suggested upon theoretical grounds that the illness ought to be much more common and much more serious in those who have deformed and particularly contracted pelves and in those who have pelvic tumours, such as uterine fibromyomata or ovarian cysts, in addition to their pregnancy. These complications have existed in a few of the cases and theoretically they should play an important part in the pathology of the condition. Nevertheless, the existence of pelvic tumours or the like with pregnancy is by no means essential, or even common, as a cause of the pyelonephritis. The cases recorded have almost all had normal pelves and normal pelvic organs. The disease is therefore one which may arise in otherwise healthy women.

In regard to the question of whether a woman is liable to it during her first or a later pregnancy, opinions differ. It seems quite clear that the first few pregnancies may be quite uncomplicated and yet that pyelonephritis may develop during a later one; several observers lay stress upon its occurrence in primiparæ, but the truth seems to be that it may arise during any pregnancy and that in the differential diagnosis no stress can be laid upon the fact of the patient being a primipara or otherwise. It is clear that if obstruction to a ureter is an essential factor in the disease, the trouble is not to be expected in the earliest months of pregnancy. This is borne out by the cases themselves. The pyelonephritis may not appear until quite late in the pregnancy, but in the typical cases the mischief begins about the fifth month, as in the two cases described above.

The bacteriology of the pyelonephritis.—The bacteriology of the condition is very constant. In all but a very few of the recorded cases the organism that appears in cultivations from the purulent urine has been the bacillus coli communis. It has nearly always been in pure culture. Mr. Bellingham Smith found it in seven consecutive cases, and in only one case, recorded by Vinay, was the mischief attributable to another micro-organism—namely, a streptococcus.

There is some difficulty in determining the route of infection; this applies, of course, not only to the pyelonephritis of pregnancy but also to the similar suppurative lesions that may ensue when there has been residual urine in the bladder for a long time, even though no catheter or other similar instrument has ever been passed. The three paths by which the micro-organisms might, it may be supposed, reach the kidney are: first, from the bladder, ascending by the ureters; secondly, by the lymphatic vessels; or thirdly, by the blood stream. It must to some extent remain a matter of opinion as to which of these three paths is the more usual in these cases. Personally I agree with Mr. Bellingham Smith in thinking the blood stream the more likely route of infection, his arguments being as follows. Whereas it is true that, as Opitz urges, the female urethra always contains organisms and that the bladder in pregnancy is very liable to cystitis, nevertheless there are two objections to the view that the path of infection in the pyelonephritis of pregnancy is *viâ* the bladder—one anatomical, the other clinical. The anatomical objection is that the ureter in these cases is dilated, not in its whole extent, but only above the brim of the pelvis; the valve-like opening of the ureter into the bladder, which normally protects the former from infection, is still present and in perfect working order; there is no dilatation of the vesical end of the ureter, such as to cause a free communication between the latter and the bladder, and consequently there is no free path for the ascent of organisms from the bladder into the ureter. The clinical objection is still greater. The chief feature of pyelonephritis in pregnancy is the presence of pus in the urine without any symptom pointing to cystitis. None of the cases under discussion have afforded any evidence of preceding cystitis and cystoscopic examination in the severer of the two cases of which notes have been given showed that the bladder was perfectly healthy. There are no doubt other cases of pyelonephritis secondary to existing cystitis, the symptoms being aggravated by the existence of pregnancy, and in such cases the path of infection would doubtless be from the bladder just as it might be in a non-pregnant person; but in the cases of pyelonephritis under discussion there is no cystitis, pregnancy is an essential factor in the disease, and it seems unlikely that the organisms reach the kidney by ascent from the bladder.

Infection by the lymphatic vessels is very difficult either to prove or to disprove and there is little or nothing that can be stated definitely about it. Infection by the blood stream, on the other hand, is possible, and, if the vesical and lymphatic routes can be excluded, even probable. Experiments have been made on animals in which after artificial stenosis of a ureter purulent nephritis followed injection of bacillus coli communis cultures into the blood stream. Moreover, it has been shown that the healthy kidney sometimes excretes micro-organisms such as tubercle bacilli and typhoid bacilli in patients and animals who are suffering from an apparently local tuberculosis or from apparently uncomplicated typhoid fever. In these cases the micro-organisms have presumably

reached the kidney in the blood stream, and if tubercle and typhoid bacilli can do so it would not be surprising if the bacillus coli communis did so too. The healthy kidney would eliminate the bacillus without itself suffering. The existence of stenosis of the ureter might well cause the urine containing such bacilli to stagnate long enough to allow of infection of the walls of the passages, even without supposing that there was diminished resisting power in the parts owing to the obstructed outflow. The ease with which the bacillus coli communis can reach the blood stream is well known from post-mortem examinations, where cultivations from organs situated far from the bowel nearly always yield this micro-organism in cultures made soon after death. It is held by some that a similar escape of the bacillus coli communis from the bowel into the blood stream can occur during life, particularly when there are abnormalities in the functions of the alimentary canal.

This raises the question of whether the pyelonephritis of pregnancy can occur when there has been no abnormality in the intestinal functions, or whether, in addition to pregnancy and partial stenosis of the ureter, some error of the bowels, particularly constipation, is essential to its production. This is a very difficult matter to decide. It is very certain that a great many pregnant women may suffer from constipation without any other deleterious effects. Nevertheless, granted that a patient were on the verge of developing pyelonephritis, the existence of severe constipation might very possibly cause a certain number of colon bacilli to enter the blood stream and thus prove to be the final or determining factor in the illness. This seems to have been the case, for example, in connexion with the second patient described above; always very costive, she was suffering so much from constipation just before the pyelonephritis set in that she could only get her bowels to act by the use of repeated enemata.

The effect of the pyelonephritis upon the pregnancy.—A number of questions arise, to each of which the physician may be required to give an answer if he can. Amongst these are the following: To what extent does the pyelonephritis interfere with the course of the pregnancy? Is it likely that the child will be born dead? Seeing that pregnancy is a fundamental factor in the pyelonephritis, ought obstetrical measures for the termination of the pregnancy to be advised? Is the time of labour one of special danger? Is the patient particularly liable to uræmic symptoms? Is there any relationship between pyelonephritis and puerperal eclampsia? Is the condition likely to be completely cured after labour, or is a residuum of kidney inflammation to be expected? Is the patient very liable to have a recurrence of the pyelonephritis in a succeeding pregnancy?

It is only by a collective inquiry, in which mild as well as severe cases are included, that conclusive answers can be given to these questions. Under present conditions it is dangerous to base opinions upon published cases only, because those which are thought worthy of being published are often not the ordinary cases but rather those which present points of special interest. On the other hand, an individual can scarcely hope to meet with a very large number of cases himself, so that until records of consecutive and unselected cases can by some means be gathered together it is only possible to base one's opinion either upon recorded, and therefore selected, cases or else upon the few cases that one has oneself watched.

It would seem that, diagnosed early and treated by confinement to bed with antipyuric remedies, the condition usually tends towards resolution, notwithstanding continuance of the pregnancy. Moreover, in the majority of what may be called cases of ordinary severity the pregnancy is not particularly apt to come to an end prematurely. The children do not show any special liability to die in utero and the mother is not subject to uræmic convulsions at the time of labour. No doubt there are individual cases in which the illness is so severe that it might be wise to advise relief to the ureteral obstruction by the use of obstetric measures for emptying the uterus. The kind of case in which this might be the best course to follow would probably be one in which the renal mischief had set in with severity during the earlier months of the pregnancy and had then persisted for a month or more without abatement in the symptoms, notwithstanding all the medicinal treatment available. Such cases as these are distinctly the exception, however. The majority of the patients require the adoption of no obstetrical measures for the time being. Treatment upon purely medical lines, by absolute rest in bed, light nourishing diet, laxatives, and such drugs as are known to benefit pyuria, begun early and carefully followed, will usually relieve the patient of her untoward symptoms comparatively soon—that is to say, within three weeks or a month. The pyuria will often persist for a month or six weeks after the patient herself feels quite well, and unless considerable care is observed a relapse is apt to occur before the pregnancy reaches term. Repeated microscopical examination of the urine is therefore essential, and medical supervision is required as long as any pus is present. Eclampsia is not to be expected and the patients nearly always get perfectly well of their pyuria after the child has been born.

It would not be at all surprising if similar pyelonephritis were to recur in succeeding pregnancies, and cases are on record where this has actually been the case. This is not the invariable rule, however. If the pyuria is completely cured after one pregnancy, and care is subsequently taken to insure that there is neither constipation nor diarrhœa such as might predispose to invasion of the body by the bacillus coli communis from the intestines, it is quite possible for a succeeding pregnancy to pass by without any symptom of pyelonephritis at all.

In conclusion of this lecture, stress may well be laid upon the fact that the pyelonephritis of pregnancy may easily be mistaken for something else. The milder cases may be regarded as simple pain in the back, as lumbago, as influenza, and so forth; severer cases may be thought to have pneumonia, pleurisy, or the like; the most severe cases may be diagnosed as appendicitis or as some other intra-abdominal condition. The main symptoms of the disease are backache and pyrexia, with or without headache, vomiting, or rigors, and unless the urine is carefully examined for pus corpuscles the real cause of the trouble might readily be overlooked.

A Lecture
ON
THE SPECIAL PSYCHOLOGY OF WOMEN.

Delivered at the Institute of Hygiene on March 10th, 1908,

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LADIES AND GENTLEMEN,—By psychology we mean the mental processes in their subjective and objective ramifications, what they appear to be, or should be, to the individual, and what they are, or should be, to the external world—to society in all its gradations. To speak on this subject presupposes that one has, at least to some extent, such a share in the form of mental action as will justify the audacity of criticising what can only partially be experienced. This would be easy enough in the uni-sexual mind, but women are women and men are men, and though there are points of resemblance, both in bodily and mental structure and function, there are yet such profound differences that the one must always be a puzzle to the other. We may be able to say what women ought to do, but that we find them acting and talking very differently merely proves that we have not correctly estimated the factors upon which their motives have been formed, and since a complete fusion of intellects is not possible the psychology of women must always remain a paradox to men. It is a different form of mind that we are asked to appreciate, and it is no more possible for the mere man to predict what the mere woman will of necessity do than it is for the timid person to understand the *audace* of a lion-tamer or for the rat-catcher to flee at the presence of a mouse. And yet this dis-association of mind in the two sexes is not a complete one; there are many common features. There are men of whom it may be said that there is much of the woman in them and there are what are called masculine women who seem to be composed largely of the attributes of the male mind. We shall see that much depends upon education and environment and that except in one particular direction there is in reality little difference between the two classes of mind—that one

may be complementary to, or may largely replace, the other, and that it is quite feasible to suppose a society in which, *quâ* mentality, the position of the sexes was reversed; indeed, such a state of things did exist in the old Basque provinces, where the judges were women and women exercised the suffrage!

Up to a certain point there is little, if any, mental difference between the boy and the girl. Except for dress it would be difficult to tell one from the other, and perhaps also of environment, and in these days the conditions of the latter are so similar in the sexes that until the parting of the ways (the changes at puberty) there is no distinctive mental difference between the sexes—the one might sit as understudy to the other, either in work or play, and no one would be the wiser. Granted that differences in dress at an early period and separation in domestic arrangements do tend to make the child recognise that *he* and *she* are in some way different, this is entirely an artificially grafted idea and in no way affects the position that at first and for a long time afterwards the mind of the one is the mind of the other. The boy and girl are each others' playmates until at puberty a marked change in their relations to each other occurs—he who was up to then the trusted *alter ego*, treated with confidence and in a spirit of equality, is now viewed as an objective of a very different character, he is a person to be kept at a distance, to be treated with reserve and regarded with suspicion, and this change of relationship is more or less fostered and maintained for ever afterwards: life from being asexual becomes bisexual.

What grounds are there for saying that woman is inferior to man? What is the local sign of inferiority? Hitherto it has been shown chiefly by submission to authority, a smaller range of idealism, a more delicate and therefore less strong bodily organisation. There are other signs, but I will take the three named as representative of the general relations of the sexes in the past, just to point out that under altered conditions of education and environment these stigmata of "inferiority" have almost disappeared. The fact is that women are not inferior to men; they are different from them, scarcely perhaps comparable, in some faculties superior; and to talk of "inferiority" is like comparing two masses of different composition and calling one inferior because it is not so large and gross.

In old times brute strength or force was the sign of superiority, so the woman was in this particular inferior; she had to stay at home chiefly because of family duties, more especially with relation to the children. Naturally, too, she was kept out of the State deliberations and her intellect had no chance of developing. Therefore she had to protect herself and this she could do only by intellectual or mental means; hence she would seek out the weak points of the man in order to enlist him on her own behalf, to which end she would employ ornaments, scents, flattery, particular enticements, &c., all calculated to appease his wrath and to retain his protection. The childless woman would come to be viewed as useless to the tribe and as a dangerous person, because she was of no use to the commonwealth, and, moreover, having more leisure, she would perhaps become revolutionary, hence she would be suppressed, and so the laws enforcing the subordination of women became very strict. How it ever came about that women were elected rulers of tribes was probably due to the fact that by accident there was no male survivor and that any opposing male faction was overcome by the adherents of the old house who were probably bribed to support it. As long as the interests of women were not antagonistic to those of the men this "inferiority" continued and would most likely have still continued had it not been for dissensions among the men themselves. Influenced by this or that a section more favourable to women would be formed and by constantly driving in the wedge women succeeded in establishing a place for themselves. When men ceased to hold women on a curb these soon got to resent even the snaffle, until at last they bid fair to go on their own untrammelled way and there is now rampant the positive enmity of strife, the position of the tyrant man being gradually forced and much of his so-called privilege curtailed, shared, or even abolished. The delay in taking a fortress does not necessarily show "inferiority," it may only mean that time is required or that all the assailant strength has not been put forth. Argument from the animal kingdom is perhaps scarcely to the point for our purpose because of the development of the upper and higher brain centres in human beings, but in some respects human beings and animals are alike, for in both the different sexual conditions bring about the same class of results; the male animals fight for the females, so do men. The female animal shows courage and devotion for its offspring, so does the woman; the animal cares nothing for its father (probably never sees him) and nothing for its mother after the period of suckling is over, and so it would be with a man were it not for the development of the intellectual centres; the animal in distress never thinks of its parents, the child in distress still expects his parents to protect him, and the young man who wants money knows that the mother does not live who, having in early days nourished him, would ever refuse her last coin or jewel to help him.

Women, being of less powerful muscularity than men, have to protect both themselves and their children by artifice. Woman is a prize, but as there are many candidates for the prizes she has to resort to artifice to obtain the victory of marriage. She has to fight just like the man has, but she does it in her own way. Hence she is deceitful, both in dress and presentation; at times she hides her charms, at others she exposes them. She resorts to false hair, to false teeth, to face powders and lotions, to beauty preservatives, and to ornaments. These are decoys and must be considered fair game. There is always an excuse for these periods of rejuvenation; they connote conditions of health. If artificial teeth conceal imperfections they also aid digestion; if "transformations" cover up baldness they also prevent cold; if face powders hide blotches and wrinkles they also prevent irritation of the skin; whilst face massage promotes a return to plumpness and resiliency. As to ornaments, the use of them, except as signs of the possession of wealth, or as the parade of ancestral relics, or as significant of official dignity, is not so clear; certainly they are very useful for purposes of trade. It is said that diamonds are irresistible to the female mind. May this always remain so. Think of the awful cataclysm that would ensue if women changed their views with regard to diamonds! But for this female passion the Boer War need never have been fought, and without its diamonds South Africa is practically useless. The "superfluities" of life are as important as the "necessities"; in fact, the commercial value of "expensive tastes" is a large asset and without these many working industries would be crippled. Just the same holds with regard to dress. The frame of the body is practically made of three triangles and there is a definite mode of covering adapted to each. At first (as is even now the case in some places) there was no clothing at all, but owing to two conditions—viz., climate and imperfections—dress or covering became a necessity, and then as affording opportunity for the display of wealth and superiority it developed into luxury. Where, as in the case of *religieuses*, it became necessary to subordinate the altruistic to the selfish and to the purely ideal dress was employed to conceal entirely the figure and form, even the face was hidden, and the veil of to-day is probably the trace of this. Dress, either as a protection against the weather or as an opportunity for hiding or displaying the curves of the figure, is so important a factor in the life of a woman that the prominence she gives to it is easily understood; it is a necessity that she shall show herself off to the greatest advantage and not pure vanity. Women have various objectives in dressing as they do, perhaps they inherit tendencies in this way and would be at a loss themselves to account for their feelings and ideas in this direction. There is truly a psychology in clothes and it is useless to say that women dress to please men or to excite the jealousy of other women, they just dress in their own way because they have to and for their own satisfaction, and though precept and environment may count for something there is yet the idiosyncrasy of the woman behind it all. She may have any number of new and fashionably cut clothes but she appears in a garb which her friends cannot understand. Why? Because of a mental trend which cannot be reduced to rules and society codes. The psychology of dress is that it makes you think that you are what you profess to be. That is why the common soldier is never allowed to appear except in uniform and why the priest always wears his black clothes and white tie. The mind of the insane is on the same psychological basis as the sane persons. I have known female lunatics who had delusions of "position" don on special occasions ("collar days") such jewels and ornaments as they could lay hands on, glass set in string or wire for rings, scarlet Turkey-twill sashes, Orders of the Garter, conspicuously displayed, in all respects like the orthodox social models.

The consideration of the psychology of women is perhaps

best based on an analysis of what are called the elements of mind—here we shall see that in some respects they are in a plus, or positive, state, in others in a minus, or negative, condition. A good deal has been made of the assertion that the brain of the man is heavier than that of the woman, but Marshall showed that by comparing brain weight with the stature in the two sexes the weight (of brain) for each inch was 0·708 in the male and 0·688 in the female, this difference being entirely due to the preponderance of cerebrum in the male, and that if the other parts of the brain are taken it was identical in the two sexes. He showed that tall persons have relatively less brain substance than short ones and that if the height in inches is divided by 1·6 the weight of the brain in ounces is obtained. Then, again, we know nothing positive about the relative qualities of the brain in the two sexes and no one can tell under the microscope whether he has a male or female brain to deal with.

The mental faculties (to use a term which is not altogether defensible) may for practical purposes be divided into—

Sensation; perception; memory; feeling, emotion and sentiment; and ideation and conation { attention, impulse, will power.

We cannot prove either from anatomy or physiology that any one of these "faculties" is, or should be, greater or less in women than in men. We can only judge by experience and analysis that whilst in some of these divisions women are practically of the same intensity and quality as men, in others they are either excessive or defective, but pray bear in mind that this is only empirical or experiential knowledge, and that the estimation varies according to the personal equation of the investigator. As to sensation, the quantity and quality seem to be about equal in the sexes, except that the sense of smell is perhaps more acute in women, probably because in men the nasal mucous membrane is blunted by snuff and tobacco. One always notices more open windows in carriages occupied by women. Perception (or the knowledge of what is implied by sensation) is probably the same in the two sexes. Memory—equal, whether as purely abstract memory or as the result of association. I believe that on the stage women are more word-perfect in their "parts" than men are, but there are reasons for this apart from the question of pure memory. In imagery or ideation the range may be as great in one sex as in the other. How often does it happen that in the highest flights of poetry, in questions of abstract mathematics, in the application of scientific theory, in romance, in practical government, we find the woman just as prominent as the man. In the departments of feeling and emotion and in the conative section it does, however, appear that women differ materially from men. To feeling and emotion they are especially susceptible and they seem to be more liable to act upon impulse which in itself proves want of inhibition. The real origin of feeling (sensation) and emotion (ideal or intellectual) is doubtful. There are different theories on the subject of it. According to one we are sad because we cry; according to another we cry because we are sad. The former make the feeling or emotion secondary to the muscular and organic (heart, lungs, &c.) display, whilst the latter make the emotion the primary condition, the display of the emotion being actually secondary to the sensation or feeling. Certainly, whether on the stage or in real life emotion and its display are far more conspicuous among women than men, and it would seem that there are special reasons for this.

The latest conclusions point to the basal ganglia as being the most intimately concerned with emotional display and these appear to be relatively larger in the female sex. If pain and pleasure be taken as the equivalent for sensation, we may say that joy and sorrow correspond with these in the realm of emotion. Moods are more permanent states of mind than emotions proper, and violent emotions are termed "passions." Now these emotions have an objective and a subjective side, and those who are strong on the one side usually show strength on the other; and joy, like sorrow, assumes different forms according to the direction which it takes—though, by the way, we have not nearly so many words to express joyous emotion as we have to express sorrow. Thus like and dislike are the most general forms of objective emotion corresponding to joy and sorrow on the subjective side. Sorrow directed upon the object which excites it is called "care"—we can only be full of care about others; when subjective it is "melancholy." One theory is that pain and pleasure, joy and grief, represent just what is harmful to us and what is of advantage, that therefore we recognise that when enduring grief or sorrow we are in a mental condition analogous to pain on the bodily side. If so, pain and grief may be conservative to both body and mind; as long as they are there we know that something is wrong and we must strive to remedy it, just as insomnia calls our attention that there is something lacking in the periodic return of rest, and that therefore it is a sentinel to warn us that we must be on the alert to find out where the mischief, of which the insomnia is the sign, lies. Now what is the object of emotion? Why is it so important in our mental category? There are people who pride themselves upon never having feeling or emotion; they say that nothing moves them, they are impassive, never excited, never depressed, everything that occurs is to them a matter of course, and from their altitude of serene indifference they behold with a sort of neutral contempt their more demonstrative congeners. Premising that they are correctly describing their subjective states the condition is not one to be envied, for it is the mental attitude of the degenerate and the imbecile, who scarcely know what feeling and emotion mean except in the very lowest degree. The expression of emotion is both conservative or protective (when it is essentially reflex) and deliberate. The first glimmer of intelligence in the infant is the smile responsive to that of its mother. Is it not well that the dawn of intellect shall be heralded by happy auguries? And in the bodily and facial expressions of fear or of anger the woman appeals in the only manner possible to the protection or sympathy or other mental states of the man.

Two very prominent emotions among women are obstinacy and sympathy. It is obstinacy which comes to her aid when she is beaten and it often makes her illogical, not that the woman does not see that she is wrong but that being used to conservancy she wishes to preserve intact the stand she has taken and therefore she argues that by persistence she can wear down the attack, and as she knows from former experience that defence is useless without attack she is not only obstinate but recriminative. The wise man knows—or ought to know—that a woman's obstinacy is merely the evidence of the strength of his attack and probably of the successful issue of it, and noting this he should not blame the woman, for it is often her only rampart. It is at times best to concede gracefully the point at issue and to let her march out with the honours of war. In sympathy we note a device for setting up in others a frame of mind similar to one's own, so that what is wished for may be gained, or else a desire to enter into the feelings or mental attitude of another person so as to ascertain, if possible, the object of these others in pursuing a certain course of action, or else by showing sympathy to make it evident that they agree with the opposite party, an agreement which will be to the benefit of the sympathiser certainly in that the feeling of support is stronger towards those who think in the same way—and the forms which sympathy takes vary according to the motive of the woman. It is now of the gentle, soft, and low-voiced form (so excellent a thing in woman, as King Lear said); at another time it takes the martial, active, strident type necessary to harmonise with and complete the unity of mind the *vis viva* of which it is sought to obtain. The suffragette question is perhaps the best example of the extent to which these two emotions of obstinacy and sympathy will carry women. Their wonderful obstinacy is due partly to a sense that there is really no good reason why they should not have a vote if they wish it, partly to the idea that they can by this same obstinacy break down the opposing strength (for it is really a fight for freedom from the restraints of the majority), and by their powers of objective sympathy they endeavour to arouse corresponding emotions in their antagonists. They see that a few men are (or say they are) in their favour and so they appeal to these traitors in the camp in the hope of spreading disaffection, for they know that they can only get what they want by the consent of men, and as the authorities seem determined not to let them have it, there but remains to view the present position of the suffragist as a necessary consequence of her mental equipment. We notice that pain and worry on the subjective side beget sympathy towards others. Women are more sympathetic than men because physiologically they have to endure more—the community of bodily pain and mental worry is plus or positive on the woman's side, and in this way they have more sympathy. Sympathy is never true without experience; it is the endeavour to give external support by

making others believe in the reality of what they are saying or doing—it is, indeed, a form of flattery. Another plus-emotion in women is jealousy. Women having appropriated the male element do not mind how the latter deals with them as long as he does actually confine his attentions to them. Jealousy implies the rankling sense of inferiority, that something is lacking in their attractiveness or in their duty. It is jealousy which prompts to violence and to murder more perhaps than anything else (except drink), and arising as it does from one of the earlier and lowest developed parts of the brain it partakes more of the nature of an instinct—i.e., that of self-preservation—and therefore it should always be gently estimated. The only way to overcome the feeling is by education and the use of the higher brain, but in the capacity to do this is just where the lower grades of society fail, hence crimes due to jealousy are more frequent in them.

A great deal is said about women's desire for amusement, as if it was a special *proprium* of the sex. Is this so? I do not find that where women have plenty to do they require an inordinate amount of it. Given strength of body they naturally must expend their neuro-potential, their energy, in some way, and of course they naturally take the easiest way. So do men when they have no work to do. It is said that nowadays women do not care to have large families because they want to enjoy themselves, but it is probably the other way about: it is the want of families that drives them to seek amusement, and yet though we ought to admire the efforts they make to employ themselves there is an advantage to others when women choose to enjoy themselves, for they irradiate brightness to others. Often the so-called "enjoyment" is merely hard work to avoid *ennui*, and the women who grizzle because of the distaste for, and decay of, home life in their daughters, which makes them always on the rush for going away, for visiting, or playing hockey or tennis all day, should remember that it is chiefly because the home life is conducted in a dull, monotonous, cramping, and enervating spirit. Still, there must be some butterflies, and the woman beautiful, the well-dressed, the decorated and adorned, she who apparently has nothing to do but to be gracious, must not be deemed vain and useless—she is fulfilling a part in the order of nature as surely as her more humble sister in the sombre hues of workaday necessity. That these bright creatures work hard in their own way ought to be appreciated, for see what privations, what training, what fatigue, have to be endured to maintain the rôle. Health is a very good thing, but it requires hard work to maintain, as well as restraint. There is one phase of emotional expression which has strong bearing on one of the most distinct of all the emotions, love. I refer to this that especially among the upper classes expression of emotion is either a thing of the past (it being thought "bad form" to show what is thought or felt) or else it is purposive or is relegated to the province of the actor. There is, however, no doubt that the emotion may exist without any external sign, and perhaps women suffer from this repression. What a relief expression gives to an emotion. How painful almost to bursting-point is the effort to suppress it. Men confess to difficulty in understanding the action taken at times by women in the presence of this particular emotion. They may show the greatest nonchalance when they are feeling the most strongly, and without doubt by enduring they may imperil their chances of success. Well, they prefer to take the risk. The clue to this seems to be partly due to the instinct of self-preservation, waiting to see how real the feeling of the opposite party may be, partly to the idea that the ardour of the attack is generally in direct proportion to the resistance, and partly to self-conceit or pride. There may also be the idea of the unreality that often attends emotional display.

In considering woman's rôle in the conative faculties—voluntary power and impulse—I will say that we know of only one reason why they should differ in quantity and quality from what they are in the male, and that is the possible excess in development of the very highest centres in man, which on evolutional lines are the last developed and the most inhibitory. But as a matter of observation we (men) have come to the conclusion, rightly or wrongly, that they are more impulsive and less inhibitory than men are. Perhaps this is true, but if so I think that it is a condition due mainly to circumstances and to education and that the balance will or may be as fully established in the one sex as in the other. Impulsive conduct is the most simple form of voluntary action; it occurs in the young whose higher inhibitory centres are not yet developed, in the degenerate where they never can be developed, and to some extent in people who have to protect themselves and their children, and it is indeed very like the action of instinct though not altogether like it. True, voluntary action means the balance of motives; it is a higher and later development than is impulsive action; it is a higher educational phase and is, therefore, in accordance with the laws of development, the first to go when decay sets in. If it is true that women are invariably more impulsive than men it would point to this, that in general the female mind is not of so evolved a type as the male, but the potentialities for complete inhibition exist in the one just as much as in the other, and any "inferiority" in this particular, if, indeed, it exists at all, is accidental and may in time with education be compensated. Feeling or emotion enters very largely into the composition of voluntary and impulsive action and therefore we have good reason for concluding that women in whom the emotional factor is strongly developed must show strong impulsive and voluntary action.

Our analysis has then led us to the conclusion that woman has some advantages and some hindrances. She is very quick in perception and unfortunately (at times) is quicker in action: thus excessive impulse helps her in protecting herself and her children; it, however, at times lands her in awkward circumstances.

It is often asked, "What have women done in advancing science?" Well, they have only just begun to study it. In idealism in writing they have equalled if not excelled men. It is often difficult, where no names are given, to say whether the book is by a male or a female author. When I was examiner in psychology at the University I could not tell the sex of any of the writers of papers either from the handwriting or from the matter, and it often turned out that on getting the name corresponding to the number of the candidate I was mistaken. In the rôles of life women have prejudice and long oppression to combat but except from the way in which they are handicapped sexually there seems no reason why they should not do men's work just as men may do women's work; in fact, the terms "men's and women's work" should cease. Generally speaking, what one can do the other can also.

Cruelty in women.—If the *proprium* of the woman is to have and to bring up children she must be on the look-out for anything likely to hurt them; hence her indifference to the welfare of others as long as they stand in her children's way, and this makes her possibly cruel; moreover, if she is disappointed in the way her own children turn out she may turn against them and be cruel to them. For this reason married women are very *patriotic*, for patriotism is based upon the desire to protect our own from the intrusions of the alien. Self-interest due to inherent weakness must engender craft, obstinacy, cruelty, recklessness of means to secure an end, personal adornment (to attract), quick perception, action on impulse and, if necessary, artfulness and the capacity for waiting until success is assured. If for a moment one turns to the mode in which insanity shows itself among women as compared with men, one finds that[1] it is characterised by excess in women, of impulsive acts, of tendency to suicide, of destructiveness.

What is the psychological future of women? They outnumber men, they are taking on the occupations of men, they cannot all be married, and as much of one (the chief?) side of their nature cannot be developed their complete psychology must be impeded. Polygamy cannot be thought of: it entails too much hardship and loss of freedom. Free love is out of the question. They will become abortive both in body and mind and will be a different thing from what we now know. They will develop certain aptitudes which they may happen to possess and therefore will become notable in certain ways of intellect and work because their environment will become extended. I see no limit to their occupations, and if by dint of obstinacy they do get into Parliament they will first participate in and then monopolise; they will by sheer weight of numbers bring about such social conditions that a revolution will ensue—the men will turn and rend them. The married woman instead of being looked upon as the honoured and favoured one will be voted by single sisters as an impediment to her plans for subverting the position of the sexes, and I think that the married women

[1] See article, The Sexes in Lunacy, St. Bartholomew's Hospital Reports, vol. xxiv.

see this and therefore they take side against the propaganda of the suffragette, against education, against professional women, because they see that it leads to the loss of the sex-mind and tends towards their socialism—it is just a form of slighting or disappointment. The repression of the sexual element of mind in the woman leads to a nondescript creature whose instincts are abortive and whose life eventuates in selfishness.

So then some of the elements of mind are more or are less developed in women, but there is no special feminine element, no factor present in one sex which is without counterpart in the other. The sole difference is the separation of the sexes and of some attributes specialised through this.

The fusion of the two sexes in one individual does not exist in the animal world: it would be too risky, it would lead to effects disastrous for the young. In the same way the fusion of the two qualities of mind in one individual would lead to a negative conduct. It is only poets and novelists who have made women mysterious by intensifying (caricaturing) the action of the mind-elements. It may be difficult to guess all the motives which result in a certain course of action, but when once explained (as they often are only *after* the event) the results are seen to be the things which only could have happened. The form of brain action is identical both in men and women, sane and insane. The household—the family life—represents the unity of life, and the happy and well-ordered family represents the harmonised incorporation of the two minds and bodies. But these small commonwealths are moulded on an equation formed by two elements selected and adjusted to each other, and they will not brook anything except modified interference and that by force and law. It is probable that mono-sexual judicial authorities are alone tolerable because the presence of the other would arouse the affinity-element and this would lead to a unity of conclusion not always in the best interests of the majority. As to occupations it does not matter whether the two sexes are represented or not, because the employing of either is quite a voluntary matter, but for imperial purposes mono-sexual predominance seems requisite. This mono-side may, of course, be the female. Hitherto the men have been the stronger and have held the position; let the women take it if they can.

I have tried to prove that it is the sexual element which has handicapped the woman, which is accountable for any peculiarities of a distinguishing and repressive nature; that were it not for this there is practically no difference between the potentiality of the two sexes. But what a world it would be if there was only one mind in a bisexual race? It would be a short-lived and uninteresting world. There would be no object in striving, no economy, no altruism, no ambition, no patriotism. See, then, the influence and the importance of the continuation of the species!—how it becomes a duty: without this element we have nothing but idealism, brainiess without emotion, a class of mind we cannot conceive any more than we can imagine what the future "heaven" must be where they "neither marry nor are given in marriage," a sexless, spiritual existence.

As the sexes have developed in different ways, so have the accompanying mental and bodily divergencies become emphasised; from not fighting the woman has become more timid and less assertive, but she has developed invective and persuasion, and now that she has strength of numbers she is developing force. The man is perhaps more compliant, he has up to now shown the chivalry of strength, he was always willing to avail himself of women's help, and in these later days he shows it by marrying for money. Why are women so up in arms against being married for their money? One generally finds that the men who marry women with money are of all husbands the most docile owing to the sense of dependence. Perhaps the fact that women have not always had money has tended to make them dependent, afraid to contradict, more obedient, less assertive; but now that the position is so often reversed we see that the real mind in the sexes is the same altered only by social necessity and environment.

People run away with the idea that mind in either sex is something very complicated, very profound, and very different in kind according as we see its manifestations in the man or the woman. This is a mistake. As a rule, thinking is a very simple thing, scarcely more than a reflex. Wundt's dictum is that the old metaphysical prejudice that "man always thinks" has not yet entirely disappeared. "I am inclined," he says, "to hold that people really think very little and very seldom." Many an action that looks like a manifestation of intelligence most surely originates in association. People talk about "work" as if it were the *proprium* of one sex not to be aspired to by the other, whereas there is no work peculiar to the one or the other. Everyday work is just a matter of little brain necessity; it may be a "bother," a "bore," but it involves little beyond reflex mentality. One sex might carry on the work of the world just as well as the other. Left to itself without work or occupation mind degenerates into subservience to the body; the man or the woman with nothing to do spends the time selfishly, cultivating the appetites, tending to introspection. Insomuch as there is any difference between the minds of the woman and the man it becomes an interesting puzzle to the one to guess what is going on in the other. When from force of training and similarity of environment it is seen that the minds are essentially similar then interest disappears and life becomes monotonous.

It is for women to say which they choose, whether they will still prefer to retain the position which long education and environment have given them, with the result that there is a difference which makes them the sought and desired companion of the man, or whether they will prefer the form of training and environment which, whilst it shows them capable of equalling the mental aptitudes of the man, reduces them to the mere question of being a physiological necessity. That the *weibliche* should remain the *ewig-weibliche* is, I think, the hope of the man and it would seem to be the happiest thing for the woman to lay this in its essentials to heart and to be satisfied with her position of a freely-accorded honour and devotion. Men expect in women something complementary to themselves, something to fill up their own sense of incompleteness, and they experience a feeling of disappointment when they see that women try to prove that after all there is no gap. Men want a *locus penitentiæ*, another phase of mind which shall enable them to idealise and to realise these ideals, because they feel that after all analysis, after all attempts to prove that the one sex is practically the other, there is something which they miss when left to themselves. There is something inscrutable in what seems to be the natural instinct of the man to assume that the woman is really the weaker vessel, that therefore she must be treated with consideration, with reverence, as a thing to be cherished, that there is a mystery about her which he cannot penetrate, and it comes to him as a shock to find that in these modern days she insists on considering herself to be the same thing as himself. He has hitherto viewed her not merely as a companion or a nurse or a plaything but as something different which he might worship and cherish without thought of rivalry, which he might yield to with grace with no loss of dignity on either side. Is it worth while to destroy his illusion? Is he now to find himself mistaken? Surely women will hesitate before they exchange the invincible armour of mystery and charm for the naked and tame theory of equality and similitude!

OPHTHALMIA NEONATORUM: AN EXPERIMENT IN TREATMENT.

BY A. NIMMO WALKER, B.A., M.B., B.C. CANTAB., M.R.C.S. ENG., L.R.C.P. LOND.,

ASSISTANT SURGEON TO ST. PAUL'S EYE AND EAR HOSPITAL AND TO THE SCHOOL FOR THE INDIGENT BLIND, LIVERPOOL.

With a Note by A. A. MUSSEN, *B.A., M.D., B.Ch. Dub., D.P.H. Cantab., Assistant Medical Officer of Health and Inspector of Midwives to the City of Liverpool.*

THE unsatisfactory nature of the treatment of infants suffering from ophthalmia neonatorum must have impressed itself upon everyone who has had experience of such cases in the out-patient departments of our hospitals.

As a rule, the child is not seen until the disease is firmly established, with lids swollen and conjunctiva infiltrated: it is brought day after day, week after week, even month after month, until recovery occurs, or with threatened sloughing of the cornea it is admitted into hospital, often too late to prevent permanent damage or loss. Nevertheless, I had not realised for what length of time some cases have to attend, for babies are very like each other, except, of course, in the eyes of their mothers, until a strange case was brought to hospital, in which the upper lids were everted completely

by the violence of the inflammation. This eversion probably saved the eyes, as it gave free vent to the pus; but the sight was an ugly one and identified this particular baby in my mind. At first I was very interested in the case and showed it to the students who attend the practice of the hospital, but as week after week passed I gradually began to be rather ashamed of it and to wonder when it would be finished. In the end the child recovered but took two months in the process and the mother had to bring it daily for all that time. This led me to have a record kept of the length of attendances of such cases, and to my surprise I found that this was not altogether an exceptional time in severe cases. Yet all this long treatment and danger could be saved if only the disease could be attacked vigorously in its early stages. The following cases supply proof of this assertion.

Some years ago one of the honorary surgeons was summoned late at night to St. Paul's Hospital to see a patient who had just been admitted with severe purulent ophthalmia. He remembered rubbing his eyes on the way home, being sleepy. About 5 A.M. he woke up and found that his eyes were injected and discharging a thin muco-purulent secretion; fortunately, he had some zinc chloride at hand and made up a solution of 0·5 per cent. which he kept dropping into his eyes until the smarting became too severe. He fell asleep again and on awaking found that there was still a discharge, so he resumed the use of the drops. Having to go to the hospital in the afternoon he went out but on the doorstep the pain caused by the bright sun was so severe that he absolutely spun round. However, with the aid of dark glasses he did his work and by the next morning his eyes were well. The patient, a young man, lost an eye.

The other two cases occurred in nurses at St. Paul's Hospital. One was the nurse in charge of the ophthalmia cases. The attack began in the afternoon with congestion; by the evening there was a purulent discharge and the lids were beginning to swell. She was sent to bed and the eyes were washed out with zinc chloride lotion. On the following morning there was still a discharge and argyrol 25 per cent. was used which, in her words, "stopped it at once," and she was back on duty on the following day.

The other case was that of a nurse on night duty who felt her eyes sticky in the evening: by the morning the lids were swollen and there was a purulent discharge. She was treated on similar lines to the other nurse and was back on duty in two days. These nurses have learnt their lesson and now obey orders and wear rubber gloves when dressing such cases.

These cases satisfied me that the disease is very amenable to treatment if attacked vigorously at its onset. But this is the very treatment which the average case does not receive, owing to the impossibility of carrying out, in the homes of the poor, frequent and thorough irrigation, both by day and by night. An example of this difficulty is the following case, where a medical man and nurse did all that was possible but with unsuccessful result.

The child's eyes began to discharge on the second day. A medical man was called in on the fourth day and arranged that a district nurse should come two or three times daily; he himself came once a day. Nevertheless, when the baby was brought to St. Paul's Hospital six weeks later both corneæ were perforated.

The indication, then, is the admission of cases occurring among the poor as soon as possible after the beginning of the disease into an ophthalmic hospital where vigorous treatment can be carried out both by day and by night. Having arrived at this obvious solution of the problem I was met by the equally obvious difficulties of, first, the danger of infection from the introduction of such cases into hospital, and, secondly, the necessity of the admission of the mother to feed the infant. The first difficulty was solved by the turning of a small ward into a nursery by the addition of cots and the appointment of a special nurse who is not allowed to touch clean cases. The second difficulty was much more serious and threatened to wreck the scheme. In addition to the prejudice to be overcome the risk of moving a lying-in woman in the first week had to be faced. I realised that an ambulance was necessary and could only be provided by the city authorities, so in the absence of Dr. E. W. Hope, medical officer of health of the city of Liverpool, I applied to the assistant medical officer of health (Dr. Mussen). At once he welcomed the idea and promised that an ambulance should be sent whenever required. Moreover, he told me that under the Midwives Act the health committee is responsible for the control of the midwives and under the Notification of Births Act the medical officer of health receives notification of all births within 36 hours.

Here, then, was the machinery ready to hand. Births are notified to the health department and a lady inspector visits those of the poorest class which are attended only by midwives or handy women. If she finds a baby with discharging eyes she tells the nurse to obtain medical assistance, or if too poor to take it directly to hospital. There it is seen by one of the surgeons, and if necessary detained while the health authorities are asked to send an ambulance to bring the mother. Mother and child then are put in the special ward and attended by the special nurse. Equally this arrangement applies to cases sent by general practitioners who doubtless will be glad to be relieved from the responsibility of these tedious and unremunerative cases. Of course, it is within the right of the mother to refuse to come in, in which event the baby is sent back with instructions that it must be brought at least twice daily, but I anticipate that such refusals will diminish as the ward becomes better known.

I hope also that the ward will prove of educational value, both to students and to midwives, and that it will be possible to arrange that in the curriculum of midwives in Liverpool a demonstration may be included of these cases in the height of the disease, together with examples of the results of its neglect in the persons of inmates from the Blind School. This ward is the realisation of a scheme which I proposed in March, 1907,[1] and which I elaborated in a paper read at a meeting of the North of England Union of Institutions, Societies, and Agencies for the Blind, held in Liverpool in December last. At present it is only in its beginning, having been started on Jan. 1st of this year, but I hope by this preliminary note to arouse interest in, and to evoke criticism of, an experiment in hospital and municipal work which I believe to be quite new, at any rate in Great Britain.

Note by Dr. MUSSEN.—Much has been done in recent years to prevent the lamentable results of ophthalmia neonatorum, but there is still a very large number of blind children who owe their blindness to this disease. It is with this object that Mr. Nimmo Walker has suggested the scheme which he sets out in the preceding paper, and which appears to be the only scientific and radical system of dealing with such cases occurring among the poor.

There are two chief obstacles in dealing with these cases: first, the difficulty of obtaining early information as to the disease; and secondly, the difficulty of continuous treatment. The former can be, and is now, reduced by the Midwives Act, 1902, which brings the supervision of the work of the midwives under the control of the local sanitary authority, and by impressing on midwives the serious nature of even the slightest appearance of inflammation in the eyes and the need for prompt medical attention. In order to accentuate these lessons particulars have been supplied by Mr. Walker of any cases of ophthalmia neonatorum which from time to time come under his notice, and the midwife who attended the confinement is interviewed and dealt with as the circumstances of the case require. The Notification of Births Act also assists in bringing cases of the disease to light, but it is not as effectual as the Midwives Act.

As regards continuous treatment Mr. Walker rightly recognised the immense importance of cases which are too poor to be treated satisfactorily at their homes, being admitted into hospitals together with the mother, and when he was able to arrange for a ward to be set apart for the reception of these cases in St. Paul's Eye and Ear Hospital, the health department willingly afforded the assistance of an ambulance for the purpose of conveying the mother to the hospital in order that the infant might not suffer in being separated from the mother. The results of this experiment have been so encouraging as to make us hope that it may be the means of bringing this affection, which is followed at present by so much misery, into greater prominence, and of developing a system for its prevention and treatment which will further reduce the number of preventable cases of blindness in our hospitals and asylums.

Liverpool.

[1] Brit. Med. Jour., April 5th, 1907.

THE RIBERI PRIZE.—The Riberi prize, which is worth 20,000 francs and which is awarded by the University of Turin once every five years, has been gained by Professor Bartolomeo Gosto, one of the directors of the Public Health Laboratory of Rome, for his researches on the "Bio-reactions of Arsenic, Tellurium, and Radium."

THE TREATMENT OF TRACHOMATOUS DACRYOCYSTITIS.

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WHEN I first began to treat cases of lacrymal obstruction in Palestine I was surprised to find that they reacted to treatment very differently from similar cases in Europe. The average Arab's or Oriental Jew's eye (I do not here include the imported Polish Jew) will tolerate very much more intra-ocular manipulation than will the Western's eye; for example, one can needle without fear of any subsequent reaction and post-operative iritis is never seen in Jerusalem, if even reasonable cleanliness be observed. With regard to the lacrymal apparatus conditions are reversed: treatment which may in England be adopted with impunity in the East can lead to disaster.

It has for a long time been my custom to treat lacrymal obstruction by daily lavage with Anel's syringe. I use solution of normal saline or boric acid, and if any mucoid discharge be present I leave a few drops of a 5 per cent. solution of protargol in the sac. I have carried out this method constantly in England and I have never seen a single case in which it caused irritation. In Jerusalem simple syringing has in my hands caused œdema of the lids and now and then a regular "black eye." On several occasions the syringeful of lotion, instead of entering the nose or returning by the canaliculi, has distended the loose tissues of the lower lid. In two cases of suppurative dacryocystitis, one of them under the care of a colleague, an eye was lost through a retrobulbar abscess followed by optic atrophy. The injection of protargol in any solution stronger than 5 per cent., or of a ½ per cent. solution of silver nitrate invariably caused œdema and great pain.

All these patients suffered from trachoma, often in a severe form, and I have come to the conclusion that the sacs and canaliculi were also trachomatous and were in consequence very friable. The slightest pressure appeared to cause a rupture of the sac walls and the fluid then passed into the surrounding tissues. These trachomatous sacs are often of enormous size; I remember two which when dissected out were as large as pigeons' eggs; the walls are very thick and yet so friable that it is almost impossible to remove them intact. Basso [1] has demonstrated the existence of a trachomatous dacryocystitis, and he points out that such a condition may be the sole manifestation of trachoma, and, in fact, was so in 14 cases out of the 20 which he examined.

Treatment must be carried out with extreme care, and no stronger solution of protargol or argyrol than 5 per cent. can be safely employed—in fact, it is better to use none at all until the sac has become accustomed to simple lavage with boric acid or normal saline solution. If pus be present it is very much wiser to dissect out the sac at once than to run the risk of causing a retrobulbar abscess. All the cases in which this was done did well; but owing to the prevalence of trachoma and chronic irritation of the lids in the East epiphora is more frequently complained of after extirpation than with us. The operation may be more extensive than usual, for the sac may extend to the middle of the lower eyelid. Hæmorrhage is apt to be very troublesome, but it can be to a certain extent avoided if it be borne in mind that it usually comes from the upper and nasal aspects of the sac. If the dissection be commenced from below and from the outside the sac can often be defined and freed from its attachments before the nasal side is attacked. If possible the angular vein should be located and the skin incision be made external to it; it should not be carried too high up or the branch which comes from the upper lid will be cut. Later in the operation when the sac has been defined the incision can, if necessary, be extended upwards. I rarely use a retractor; a suture through each wound lip held by a nurse is more convenient. Occasionally I use Axenfeld's retractor, which I have modified in the manner well shown in the accompanying illustration. The three sharp prongs of the original, impelled by a powerful spring, seemed to me so very dangerous that I got Messrs. Down Bros. to replace them by a simple curved flat plate. The original fork once wounded my finger and the idea was ever present that the retractor might slip and all three prongs bathed in pus be driven into the cornea. The modified instrument has proved as efficient as the original and is perfectly safe.

I have rarely seen a case cured by the use of probes and styles. The highly fragile and irritable mucous membrane, which is so easily ruptured by simple hydrostatic pressure, is torn and lacerated by a probe, however dexterously passed,

and the resulting organic strictures are incurable. In my opinion if a case of dacryocystitis cannot be rapidly cured by simple lavage and protargol the sac should be extirpated.

The following cases illustrate some of the difficulties which have been mentioned:—

CASE 1.—A Jew, aged 55 years, came to the British Ophthalmic Hospital on July 8th, 1903, suffering from dacryocystitis. He was told to attend on the next day for treatment but was not seen again until the 13th. The canaliculus was dilated with Lang's dilator and the sac was irrigated with boric lotion. The sac was full of pus, but the duct was patent, fluid passing freely into the nose. This treatment was repeated on the 15th, 17th, 20th, and 23rd. Each time there was less pus, and there was no sign of any local inflammation after the treatment. The patient did not attend again until the 27th when he appeared with the following condition. The whole eye was pushed forwards, there was great pain, and much brawny œdema of the lids. The lids were hot and the patient had a raised temperature. There was no iritis; the pupil was normal in size but did not react. There was no perception of light. The man was admitted and an incision was made under the brow. Some thick pus was found on the outer side of the orbit and was evacuated by Hilton's method. On the 30th the inflammation was much less and the eye had resumed its normal position. V. = hand reflex, good perception of light; fundus not seen on account of opaque media. On Oct. 30th all was quiet; no perception of light; vitreous full of large floating opacities. The disc was dead white and the arteries were small.

This patient had severe trachoma. Most probably the walls of the sac were ruptured by the syringe and septic matter was forced into the tissues. The pus was found at the outer aspect of the orbit.

CASE 2.—A Jewess, aged 56 years, came to the British Ophthalmic Hospital suffering from trachoma, trichiasis, nebulous cornea, and adherent leucoma. There was a dacryocystitis of ten years' standing. The canaliculus had been slit up and probes had been passed. On June 29th the sac was syringed out with boric acid. On July 8th the sac was syringed out and a few drops of a ½ per cent. solution of silver nitrate were injected and again washed out. On the 9th there was much swelling of the lids with chemosis and great pain. On the 13th a No. 4 Bowman's probe was passed and bare bone was felt. On the 15th the sac was again syringed out and some blood-clot washed out; there was a

[1] Annali di Oftalmologia, vol. xxxv., 1906, fasc. 7-9.

free passage to the nose. On the 20th the sac was swollen and hard; it extended to the middle line of the lower lid and was probably full of blood. On the 23rd the sac was dissected out. It was as large as a pigeon's egg and its walls were from 1·5 millimetres to 2 millimetres thick. The operation cured the case.

CASE 3.—A female Arab, aged 30 years. This case was almost exactly similar to the last cited. The sac was enormous and contained two drachms of pus; it was syringed out and a little ½ per cent. silver nitrate solution was left *in situ*. This caused great œdema and pain. The sac was syringed out daily for 14 days with no result. A No. 4 probe found a tight stricture and bare bone. The canaliculus was now slit up by a colleague and the neck of the sac was divided with Stilling's knife, a large conical probe was passed into the nose, a counter puncture was made in the skin, and a drain inserted. This treatment had no effect. Ultimately the sac was extirpated and the patient was cured.

Both these patients had old cicatricial trachoma; the sacs were of large size with thick walls. Silver salts were not tolerated.

CASE 4.—A Jew, aged 26 years. On Nov. 10th, 1904, there was a discharge of pus from the left lacrymal sac. The condition was said to have been present for some time but the patient could not say how long. On the 11th the sac was syringed out with boric acid and a few drops of a 10 per cent. solution of protargol were left in the sac. On the 12th the left side of the nose and both lids were œdematous and there was much pain. This œdema cleared up in two days and treatment was continued with 5 per cent. protargol solution which was well tolerated. A month's treatment was without result.

In this case 10 per cent. protargol caused irritation. Parsons[2] recommends that from 10 to 15 per cent. be used, and I have personally often used 15 per cent. in England. In Palestine in trachomatous cases even 10 per cent. is never tolerated.

Coventry.

ON THE PATHOLOGY AND TREATMENT OF INGUINAL HERNIA IN CHILDREN.[1]

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OUR ideas on the pathology and treatment of this exceedingly common ailment have been so considerably altered during the last ten years that I think no excuse is necessary in choosing this as the subject for our consideration to-day. I shall found my remarks on 78 patients who were all suffering from inguinal hernia and who were operated upon by me in this hospital; I have purposely excluded my other cases as these, treated in similar circumstances and by the same method, well illustrate the points which in my opinion demand our attention in dealing with hernia in children. In briefly discussing the pathology of this condition I shall ask you to accept the view which was first definitely laid down by Hamilton Russell[2] of Melbourne which states that hernia is primarily a developmental defect owing to either partial or complete persistence of the embryonic processus vaginalis. Russell has expanded his theory so as to include herniæ in all situations and whenever they may appear, and although others hold an opinion contrary to this as to the causation of some herniæ occurring in adults most of those who have given the subject much attention agree with Russell's view in the causation of the condition which we are discussing to-day.

You will remember that in fœtal life a process of parietal peritoneum is pushed or drawn down in front of the descending testicle, and that from this the tunica vaginalis is formed, the remainder of the peritoneal tube in normal circumstances being obliterated. It is a well-accepted view that persistence of the whole process gives rise to what has for a long time been called a "congenital" hernia; it is strange that while this is allowed the presence of a peritoneal process extending from the internal ring along the inguinal canal and yet unconnected with the tunica vaginalis should be regarded as an entirely new formation driven down from above by abdominal pressure. It is surely more logical to admit that while in some cases the processus vaginalis may entirely persist, in others it may do so partially, giving rise to a sac which should bowel or omentum come down into it will produce in a child what was regarded as an acquired inguinal hernia; this will then be more correctly described under the term of partial funicular or congenital hernia. To my mind this is a far easier explanation than to suppose that increased abdominal pressure from flatulence or coughing is associated with a local weakness of the abdominal wall in the inguinal region, which have previously been regarded as factors of primary importance in this connexion. No doubt increased abdominal pressure from flatulence due to improper feeding or from straining due to phimosis may be contributory causes, for it is of course clear that the mere presence of a peritoneal sac does not constitute a hernia unless there is some abdominal viscus which can be made to descend into it. But I want to insist that the primary and chief factor is the patent funicular process, and that it is often present was shown by Murray at the British Medical Association meeting at Exeter in 1907, who reported that in 200 consecutive necropsies 68 potential hernial sacs were found, of which 13 were inguinal; this confirms Sach's investigation upon the bodies of infants at four months when in 59 per cent. of a large number he found this process incompletely closed.

I wish as far as possible to avoid the error of drawing strict statistical deductions from a small number of cases, but in pointing out that in eight only of my 78 cases was the peritoneal process complete I am in agreement with the general opinion that the "total funicular herniæ" form only about 10 per cent. of all cases; Murray, 18 per cent.; Styles, 5 per cent. in 360 cases. In these eight patients the testis was either undescended or could be returned into the canal, and similarly of the seven girls upon whom operation was undertaken the ovary was found in the sac three times.

With regard to the diagnosis, there is only one inguinoscrotal swelling which is likely in a child to give rise to any difficulty and this is a patent processus vaginalis containing fluid, or in other words a "congenital" hydrocele. These swellings are in my experience usually irreducible, though the fluid will spontaneously return into the abdomen when the child has been lying down for a short time. When the fluid returns into the vaginal process it does so slowly and this is in itself quite sufficient to differentiate it from a hernia. In this relation I cannot agree with my former colleague Mr. H. S. Clogg, who in his paper in the *Practitioner* of September, 1907, states that a hernia in a baby may be translucent owing to the thinness of the bowel wall. I was taught that this was so, yet though throughout my seven years as a surgeon here I have systematically investigated this point I have never seen a translucent hernia though I have been called upon to operate upon two or more translucent swellings admitted as herniæ which proved to be hydroceles. I should much like to have the opinion of those present upon this point.

With regard to treatment, I have never convinced myself that circumcision in my hands has had the slightest effect in aiding the cure or even in preventing the enlargement of a hernia, nor should I expect this to be so, for I have never seen in a child the subject of hernia a degree of phimosis sufficient to balloon the prepuce which must surely have resulted if there were so much obstruction to micturition as in any way to influence the descent of a hernia.

With regard to trusses, I think we may look upon the woollen skein as obsolete, and though of course such an appliance can do no harm its use is to be condemned, as when such advice is given to the parents a false sense of security is produced and so further visits to the medical practitioner are postponed with the result that any attempt at efficient treatment is delayed. It is unnecessary to point out that truss treatment must begin as soon as the rupture appears. In a child a well-fitting spring truss covered with rubber must be applied daily before the child is taken from his cot, while the hernial contents are still within the abdomen, and in many cases where the hernia tends to come done at night a light truss must be worn at night also. The difficulty of efficiently carrying this out and of preventing the skin under the truss becoming tender and excoriated is enormous, and while I am very doubtful whether it is never systematically done by the poor I know that even among private patients the details of this treatment are often

[2] Brit. Med. Jour., February, 1907.

[1] A paper read before the Lambeth branch of the British Medical Association at the Evelina Hospital on March 26th, 1908.

[2] THE LANCET, Nov. 18th, 1899, p. 1353, and May 31st, 1902, p. 1519.

neglected. A truss must be worn day and night for several years before we can hope that the hernia will not return if the truss is omitted, and during this time great care must be taken that a new truss is obtained so soon as the child outgrows the old one; it is a matter of common experience in all hospital out-patient departments that the parents soon tire of the trouble and expense and allow the hernia to go its own way.

McAdam Eccles,[3] who strongly upholds treatment with trusses, is of opinion that this must be carried out for at least three years and holds that until this has failed the operation of radical cure should not be undertaken. One is often asked by private patients what promise there is of cure after careful and persistent truss treatment. I think it is fairly stating the case to say that a truss never cures a rupture but that by preventing its descent, dilatation of the neck of the sac and the secondary dragging downwards and displacement of the posterior wall of the inguinal canal, which should rightly be regarded as complications of the hernia, are avoided; again, the probability of strangulation is much diminished. But that trusses will do more than this I cannot believe. Of all the patients whom as an out-patient surgeon I treated here I can only remember one in whom this treatment had been so consistently carried out that after an interval of two years or more the hernia no longer came down when the patient stood up without the truss. In this connexion it is well to remember Coley's statistics which showed that of 15,000 radical cures in adults 5000, or 33 per cent., had been treated with trusses in childhood. I think it is now the duty of every medical man to impress upon parents that trusses hold out no prospect of permanent cure as the time has certainly arrived when cure can be more easily and almost certainly obtained by operative means which in themselves are practically devoid of risk.

I should regard the following as absolute indications for operation: (1) herniæ which cannot be kept up by trusses or which are painful when a truss is worn; (2) large scrotal herniæ which have stretched the inguinal canal considerably and therefore render trusses necessary throughout life; (3) the association of an undescended testis with an inguinal hernia; and (4) a hernia which has been irreducible on a previous occasion. This does not, of course, include strangulated herniæ, which must be dealt with at once, but refers to those cases in which the only symptom is irreducibility of the hernia yielding within three or four hours to elevation of the buttocks or suspension from the ankles. In my opinion taxis should never be attempted.

With regard to the broader question of operation in other cases, I am entirely in agreement with the opinion given by Mr. F. S. Eve at the meeting of the British Medical Association in 1899, when he stated that he regarded "agreement on the part of the mother to operation after she has had the alternative of prolonged wearing of trusses explained to her" as a general guide for its performance. Though some period after the first dentition is probably the ideal date at which to undertake a radical cure, there is no disadvantage in doing it much earlier and the presence of a large hernia or one which has been irreducible will sometimes demand operation in the first few months of life. Of my own cases the youngest was a month old and 15 were operated on in the first six months, yet none of these met with any immediate or remote harm, and so far as I have been able to discover there have been no recurrences. When strangulation is present the operation is undertaken under the least favourable conditions, yet in the four cases of my series in which this was present all the babies were under a year (it is generally believed that strangulation is most common in very young babies) and all did remarkably well. The experience of many surgeons shows that urgent operations are well borne in small infants, so that the question of age alone cannot be urged as an argument against a radical cure: in my opinion this is a prophylactic operation undertaken in childhood in order to avoid a more elaborate operation in later years. Further, I think that by operating in childhood we can insure a more certain result, as at this date those secondary changes in the neck of the sac and in the posterior wall of the inguinal canal which I alluded to above have not taken place. In private patients it is unnecessary to wean the infant, but when, as in hospital, this is unavoidable it is well to allow two or three weeks to elapse before operation, so that the child may become used to the new diet, as intestinal derangement may seriously jeopardise the life of an infant after this as after any other surgical procedure.

In the whole of my series the same operation has been carried out—viz., an oblique incision along the inner two-thirds of the inguinal canal exposing the aponeurosis of the external oblique which is well defined towards the pubes where its processes form the pillars of the external ring; the aponeurosis is then slit up from the external ring for about an inch—i.e., up to a point over the internal ring. An oblique incision in the same line as that in the skin is now carried through the cremasteric fascia and muscle and through the transversalis fascia, exposing the sac. It is most important to do this cleanly without unnecessary tearing of the coverings of the cord, for traumatism is undoubtedly the most frequent forerunner of sepsis, and if these structures are torn into shreds the resulting bleeding makes the isolation of the sac a matter of some difficulty. When the sac is exposed it is opened and its contents are reduced. This opening of the sac should be made not lower than the middle of the canal, and the edges being taken up with Spencer Wells forceps the sac is separated from all the other structures, which are carefully displaced in one layer. Here, again, it is important not to separate the coverings layer by layer, as doing so can only interfere with their blood-supply and favour suppuration. The sac is now divided and ligatured at the level of the internal ring with catgut applied in the form of a Staffordshire knot, the sac being meanwhile well pulled down and held taut by an assistant.

When the neck of the sac is being defined and ligatured it is well to remember that it may be encroached upon by the bladder which is here uncovered by peritoneum; similarly the non-peritoneal surfaces of the cæcum on the right or of the iliac colon on the left may slide down into the neck of the sac, forming a hernia *en glissade*. The possibility of the involvement of these structures must be borne in mind and the operator must convince himself both by sight and by touch that the neck of the sac is quite free before the ligature is applied. The external oblique aponeurosis is now sewn up beginning below at the external ring which if enlarged is narrowed so as just to allow room for the passage of the cord. In some of my earlier operations on children over six years of age one or more sutures were passed through the conjoint tendon so as to bring it down to Poupart's ligament after the method of Bassini, but I am convinced that this is unnecessary and have given it up, for in children the conjoint tendon is so strong and grips the internal ring like a sphincter in a manner which the surgeon cannot hope to improve upon. The wound having been sutured a sealed dressing is applied which is not touched until the eighth day, when the superficial suture is removed. The nursing of these patients is important; at this hospital they were placed on a mattress so divided that its middle third was replaced by a bedpan covered with a rubber air cushion which in small babies prevents soiling of the back and the possibility of excoriation of the skin; the penis was secured into the neck of a test-tube leading to a bottle so that the urine is carried well away from the region of the wound.

With regard to my results, none of the children were seriously affected by the operation but two contracted scarlet fever and were sent away; a third, aged two years, left the hospital with measles and is reported to have died at home; two cases suppurated which necessitated their retention in hospital for at least a fortnight more than was usual but in neither did this have any influence upon the ultimate result. The average stay in hospital was from 10 to 14 days and so far as I can judge there have been no recurrences, though I have seen and examined a large majority in the out-patient department at periods varying from six months to two years after operation. If it is true, as many hold, that recurrence is most likely within one year of operation then most of my cases have escaped during the period of greatest danger, but it is certainly too soon to label them as cures.

Time does not permit of prolonged consideration of the treatment of an undescended or misplaced testis complicating hernia which occurred in eight of my cases, but I must say that in my experience this condition is absolutely unfitted for a truss which usually cannot be applied because of the presence of the testis in the canal, or if a truss is worn above the testis pain from stretching of the cord is often so severe that it must be omitted. These considerations and the fact that an undescended testis is so often in the life of an active boy exposed to nipping and other painful injuries have led me to regard this as in itself a definite indication

[3] Hernia, 1908.

for operation, though I have not found that bringing the organ down and fixing it in the scrotum has had any beneficial influence upon its growth. In one case in which the defect was bilateral the testes were returned into the abdomen but in all the others the organ was brought down into the scrotum and secured by a suture passed through the skin.

Devonshire-place, W.

DISSEMINATED SCLEROSIS, COMMENCING WITH FAILURE OF VISION.

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DURING recent years many forms of disseminated sclerosis have been described; but the form considered in this article is not well known and very often it is not diagnosed correctly at first. In this form failure of vision, in one or both eyes, is the first symptom of the disease. Other symptoms may not appear or may be only very slight for a long period, even for many years. It is well known that optic atrophy, and especially partial atrophy with pallor of the temporal half of the optic disc, occurs during the course of many cases of disseminated sclerosis. But Oppenheim, Müller, and others have drawn attention to a form of disseminated sclerosis in which visual failure, with or without signs of optic atrophy, is the first symptom, and sometimes the only symptom for a long period or for several years. Optic atrophy is sometimes one of the earliest signs of tabes, and failure of vision the first symptom for which the patient seeks advice. Likewise in disseminated sclerosis, visual failure, from changes in the optic nerve or chiasma, may be the first symptom of the disease or the first symptom to attract attention. At first these cases are usually diagnosed as primary optic atrophy, or as retrobulbar neuritis, of "unknown origin." In all such cases it is important to watch for symptoms of disseminated sclerosis.

E. Müller[1] states that in a young person who has never suffered from syphilis, lead poisoning, or alcoholism, if amblyopia should suddenly develop in one eye and then partially subside, and if some time later a similar affection should develop in the other eye, the diagnosis of disseminated sclerosis is very probable. In such a case confirmatory signs would be—pallor of the temporal half of the optic disc, with the characteristic relations of the field and defect of vision, failure of the abdominal reflexes, the Babinski extensor type of plantar reflex, and slight shaking of the hands on fine movements. The age of the patient (from 20 to 40 years), the absence of any recognisable cause, the absence of pain (in most cases), and the satisfactory general condition would be points in favour of the diagnosis of disseminated sclerosis. The following are notes on cases of this form of the disease.

CASE 1.—The patient, a married woman, aged 33 years, came under treatment on account of failure of vision and unsteadiness in walking. About three and a half years before she was first seen the vision for distant objects had commenced to fail. At that time no other symptoms were noticed. A year and a half later she was confined, and a few months afterwards she noticed unsteadiness in walking and numbness of the hands. When first seen, at the end of 1906, the chief symptoms were unsteadiness in walking, staggering gait, nystagmus, slight intention tremor of the hands, and failure of vision. The distant vision was $\frac{6}{5}$ (both eyes), the optic discs were pale and atrophic, and colour vision was impaired at the centre of the field. The knee-jerks were increased; there was no ankle-clonus; the plantar reflexes were of the normal form. There was only the slightest tendency to the "scanning" character of the speech. In February, 1907, the gait was more unsteady. The knee-jerks were increased, there were ankle-clonus and the extensor (Babinski) form of plantar reflex on the right side but not on the left. The abdominal and epigastric reflexes were absent, the wrist-jerk and triceps-jerk were increased on both sides, and there was a well-marked radial extensor jerk on the right side but not on the left. An ulnar extensor jerk was present on both sides. There was a little intention tremor in the hands and the writing was very irregular. There was distinct nystagmus, but the affection of speech was very slight. The distant vision was: right, $\frac{6}{12}$; left, $\frac{6}{24}$. The optic discs were very pale and presented the changes of primary atrophy.

CASE 2.—The patient was a married woman, aged 27 years. About two and a half years before the patient came under treatment vision began to fail in the right eye and in three weeks was almost lost. Then improvement occurred gradually until the vision became almost normal. She was seen by an ophthalmic surgeon at the time, and "an affection of the optic nerve behind the eye-ball" was diagnosed. About 18 months later—i.e., about four months before she came under my observation—she first noticed unsteadiness in walking. When examined (September and October, 1906) the chief symptoms and signs were: ataxic gait; knee-jerks present; extensor type of plantar reflex (Babinski's reflex) and Oppenheim's reflex on the right side, but not on the left; vision: left eye, $\frac{6}{9}$ partially; right eye, $\frac{6}{6}$, and the right optic disc rather pale. In March, 1907, the ataxia had disappeared. The condition of reflexes was the same. Vision, left eye, $\frac{6}{9}$ partially; right eye, $\frac{6}{12}$.

CASE 3.—The patient, an unmarried woman, aged 36 years, was seen first in September, 1904. Six weeks previously her vision had failed markedly in the right eye without any apparent cause. Ophthalmoscopic examination had failed to reveal any change. The vision had greatly improved when I first saw her, but the disc had become pale. For two weeks there had been unsteadiness in walking. Examination revealed only the following symptoms and signs: pupils unequal, left larger than right, both reacted to light; vision:—right eye, $\frac{6}{9}$ partially; left eye, $\frac{6}{6}$ partially; right optic disc pale, left normal; Babinski's extensor type of plantar reflex on the right side; slight nystagmus; knee-jerks present; no ankle-clonus. The patient improved and considered that she had completely recovered, but in December, 1906, she commenced to drag the right leg in walking. This symptom steadily increased and she noticed that there was a tendency to scrape the toes of the right foot and that the leg was becoming weaker. There was also slight intention tremor in the right arm. On examination in February, 1907, there was spastic paresis of the right leg. The knee-jerks were increased. There was definite ankle-clonus, and the Babinski or extensor type of plantar reflex on the right side but not on the left. The handwriting was very irregular and jerky. The wrist-jerk on the right side was much greater than on the left. There were an ulnar extensor jerk and a radial extensor jerk on the right side but not on the left. Vision: right eye, $\frac{6}{9}$; left eye, $\frac{6}{6}$ partially; both optic discs were pale. In March, 1907, the vision=right eye, $\frac{6}{6}$; left eye, $\frac{6}{6}$. Ankle-clonus and the Babinski form of plantar reflex were present on the right side. The handwriting was much more irregular and jerky.

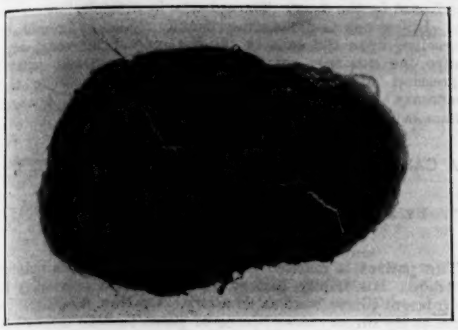
CASE 4.—The patient was a female, aged 29 years. When a girl about the age of 12 or 13 years vision failed in the left eye. She was treated at an ophthalmic hospital and disease of the left optic nerve was diagnosed. There were no symptoms of intracranial disease and no cause for the affection of the vision could be detected. In the course of several months the vision gradually improved. At the age of 26 years she began to drag the right leg in walking; in course of time the left leg became affected and the loss of power gradually increased. When first seen (in 1902) there was marked nystagmus with spastic paraplegia. There was rigidity of the legs on passive movement with marked loss of power; the knee-jerks were both increased, ankle-clonus and the Babinski type of plantar reflex were present on each side. There was slight intention tremor of the right hand and the writing was jerky and irregular. The nystagmus was so marked and persistent that it was quite impossible to see the optic discs.

CASES 5 AND 6.—In two other cases which I had the opportunity of examining frequently, many years ago, visual failure from optic atrophy was the first symptom of the disease. Both cases terminated fatally and the spinal cords were given to me for pathological examination. I found the typical changes of disseminated sclerosis in both cases. In one case failure of vision in one eye, the first symptom, was noticed more than five years before the fatal termination. Six months after the onset of the visual failure spastic paraplegia commenced to develop. Nystagmus and the typical symptoms of the disease followed. Optic atrophy developed on both sides. In the spinal cord and brain I found, on microscopical examination, numerous typical patches of disseminated sclerosis. There was also a patch of sclerosis affecting the greater portion of the transverse section of the optic chiasma, and sclerosed patches were present in the optic

[1] Neurologisches Centralblatt, No. 13, 1905.

nerves. Fig. 1 is a reproduction of a micro-photograph of a transverse section of the optic nerve stained according to Weigert's method. The central part is pale and presents the changes of a typical sclerosed patch; the peripheral part (dark) is normal. Medullated nerve fibres are almost absent in the centre of the section (sclerosed patch), but are

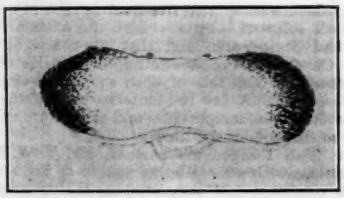
FIG. 1.



Reproduction of a micro-photograph of section of optic nerve. Weigert's stain. Sclerosis (pale) in the centre.

present at the periphery. Fig. 2 represents a drawing of a transverse section of the optic chiasma, most of which is occupied by a sclerosed patch. The section was stained according to Weigert's method and normal (black) fibres were seen only at the periphery of the section.

FIG. 2.



Optic chiasma, transverse section. Weigert's stain. Pale area (sclerosis) in the centre. (× three diameters.)

In the form of disseminated sclerosis beginning with visual failure pain and anæsthesia are very rare, as in other forms of this disease. The signs of chief diagnostic value at the early stage are: (1) unilateral or bilateral visual failure, with central scotoma in some cases and often with pallor of the optic disc, especially of the temporal half; (2) the Babinski type of plantar reflex on one or both sides; (3) the irregular and shaky character of the handwriting, even when the tremor is so slight that it can hardly be detected (a most valuable sign); and (4) the age of the patient, under 40 years. The absence of any cause for the affection and of any history of syphilis, the absence of pain and anæsthesia, and the presence of the knee-jerks, tendo Achillis reflexes, and pupillary reflexes are points of diagnostic value in favour of disseminated sclerosis. It is interesting to note that in many cases after the visual defect has become marked there is a decided improvement or almost complete recovery of vision. In other cases the visual defect remains more or less stationary, and when it does progress it very rarely advances to complete blindness, in this respect differing from the optic atrophy of tabes dorsalis.

It is also interesting to note that though the prognosis of disseminated sclerosis is usually unfavourable and the termination fatal, still statistics show that in many cases the course of the disease is very chronic—the duration being from 10 to 20 years or more. Often the disease remains stationary for a long period, remissions of long duration sometimes occur, and occasionally there is apparent recovery. (Cases of apparent recovery have been recorded by Charcot, Marie, Oppenheim, Maas, Byrom Bramwell, and others.) These facts encourage the hope that in the future some treatment will be discovered which will be of distinct service in checking the progress of the disease.

Manchester.

ON THE RECTAL ADMINISTRATION OF ANTITOXIC SERA.

BY J. PORTER PARKINSON, M.D. LOND., F.R.C.S. ENG.,
PHYSICIAN AT THE QUEEN'S HOSPITAL FOR CHILDREN AND AT THE LONDON TEMPERANCE HOSPITAL.

IT is now more than six years ago since I first published an account of the method of administering certain sera by the rectum and of the advantages of such a method over their subcutaneous injection. This practice had then been successfully followed by my colleagues and myself for several years. My reasons for publishing an account of the method were at that time purely clinical. They consisted in the fact that rapid improvement resulted from the injection, too rapid and too frequent, indeed, to be accounted a mere coincidence. Then the rectal injections are never followed by any of those untoward accidents which are occasionally seen after subcutaneous injections. And finally, those patients who object to a prick of the skin as being of the nature of an operation will as a rule submit to rectal medication. Since that paper was written many others have used the method and some have recorded their successful cases, so that now it rests on a more sure basis. Still some, chiefly those of a physiological and experimental turn of mind, have objected to it, stating that the serum is not absorbed by the rectum. This may or may not be the case, but it has never been contended that it was absorbed in that portion of the bowel but merely that good effects followed rectal injections.

The address in surgery at the meeting of the British Medical Association in 1905 on Ascending Currents in Mucous Canals contains some very interesting facts showing that substances placed in the rectum may pass upwards and may be found in the ascending colon, or even higher in the bowel. In a case of colotomy it was found that when a carmine suppository was placed in the rectum the gauze dressing of the wound was stained by the pigment within 24 hours; the same was found in other cases. They show that an upward current is present while the downward peristalsis is going on at its normal rate. That an excess of this may occur in pathological states has long been known from the vomiting of fæces, which is an occasional symptom of hysteria. Such facts show that if sera are not absorbed by the rectum itself it is not necessary that they are therefore inert, as they may be carried to parts of the bowel where it is not denied that absorption occurs. Lately, however, further evidence has been brought forward to show that sera and similar fluids are absorbed by the rectum and other parts of the large intestine. Calmette and Bretonin in a recently published article[1] show that tuberculin is absorbed by the mucous membrane of the rectum and that the characteristic reaction occurs as quickly and as certainly when the test is injected rectally as when the subcutaneous injection is given. Breton and Petit[2] have shown that tetanus antitoxin is absorbed, as they have immunised guinea-pigs against a poisonous dose of tetanus poison by the rectal injection of the antitoxin. Breton and Massol[3] have shown that both the poison of the cobra and its antitoxin are absorbed by the mucous membrane of the large intestine. Finally, Fornario[4] finds that guinea-pigs, which frequently die during the course of immunisation against the plague, are readily immunised by rectal injections, and the mortality from this is practically *nil*, while the protection is equal to that obtained by the hypodermic method. Taking these experiments of different observers in conjunction with the clinical results it seems that there is not much room for doubt that antitoxic sera are really absorbed when administered by the rectum and that this is an easy channel for their injection.

Up to the present I have hesitated to inject anti-diphtheritic serum otherwise than hypodermically, as I have thought that absorption might be more rapid in that way; but in one very severe case of diphtheria where the family strongly objected to the hypodermic injection the improvement after the rectal injection of the antitoxin seemed to be

[1] L'Echo Médical du Nord, February, 1908.
[2] Ibid. [3] Ibid. [4] Ibid.

as rapid and thorough as if it had been given in the ordinary way.

I will conclude by mentioning one case, not an exception, but a type of many others, in which the rectal injection of polyvalent anti-streptococcus serum gave a rapid result in a case of chronic gonorrhœal infection. A man, aged 28 years, came to the out-patient department of the hospital suffering from pains in several joints and especially of severe pain in the heel. He had been infected with gonorrhœa some months previously and still had a slight urethral discharge. I injected 25 cubic centimetres of polyvalent anti-streptococcus serum per rectum and prescribed no other treatment. He went home and when I saw him the following week all his symptoms had gone and there was no visible urethral discharge. He informed me that the pain in the heel, which was his chief trouble, went away within 24 hours after the injection. I should have mentioned that the patient had been under treatment elsewhere for three weeks before he consulted me.

The technique of the injections is extremely simple. It is not necessary to give a cleansing enema without there is much constipation. The patient lies on the left side on a couch and a No. 6 Jacques catheter is passed as far as possible into the rectum; to the catheter is attached the barrel of a glass urethral syringe into which the serum is poured; as a rule gravity is sufficient, but if the fluid does not flow readily the piston can be used in the ordinary way. After the injection the patient should be kept lying on the couch for a quarter of an hour and then can be sent home in a vehicle. Rest in bed is not necessary after the injection, but exertion should not be allowed.

Wimpole-street, W.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

A CASE OF POISONING BY BROMIDE OF POTASSIUM

BY A. CAMPBELL STARK, M.B., B.S. LOND.,
LATE DEMONSTRATOR ON MATERIA MEDICA AT ST. GEORGE'S HOSPITAL MEDICAL SCHOOL.

POISONING by bromide of potassium is of sufficiently rare occurrence to make any well-marked example of it worth recording. The following case also presents some features of peculiar interest. The subject was a woman, aged 35 years. She was nearly nine months pregnant. She was of a neurotic temperament but otherwise perfectly healthy. She had suffered from facial neuralgia and was ordered one evening a six-ounce mixture containing 30 grains of bromide of potassium in the ounce. This she placed under her pillow and helped herself to at short intervals during the night. It was afterwards found that she had a private store of the drug which she also took, so that she swallowed altogether about four and a half drachms of the salt in less than 12 hours. When seen on the following day she was in a very drowsy and semi-comatose condition. She could be aroused by speaking loudly to her and answered—apparently without understanding the question—in a hesitating and tremulous manner but was unable to express herself intelligently on account of aphasia. This was extremely well marked and but for the history and the absence of other symptoms would have strongly suggested a cerebral lesion. Thus the medicine was referred to as soup, pastry, as cushion, and so on. She seemed conscious that she was using the wrong word and after several repetitions of it would relapse into silence. Left to herself she passed at once into a semi-comatose state. The respirations were deep, regular, and slightly stertorous, but not slower than normal. The pupils were normal in size and reacted well to light and to accommodation. The pulse was 76, quite regular, and of good volume and tension. The fœtal heart could be heard quite plainly. The knee-jerks were exaggerated and although the muscular movements were slow and feeble the patient was able to leave her bed without assistance and totter about the room. There was no anæsthesia of the skin or mucous membranes and she took food readily and with apparent appetite. These conditions continued without any change for two days. On the third day the aphasia had begun to disappear and by the end of the fourth day the patient was practically well. She had no recollection of what had happened during the first two days. No treatment was adopted except the administration of five-minim doses of liquor strychninæ every four hours. Three weeks afterwards the patient gave birth to a vigorous male infant, the labour being rapid and uneventful.

The case is instructive on account of the well-marked aphasia and the fact that labour and the fœtus were quite unaffected by the drug. The aphasia is difficult to account for. Unless one assumes some specific action by bromide of potassium upon the cells or blood-supply of the vocal word centre one can only suppose it to be due to the general depression of the subcortical cells comparable to the temporary aphasia produced by exhaustion and debility.

Wanstead Park, Essex.

A CASE OF "ŒDEMA" LIMITED TO THE ARMS, FACE, AND NECK. ? CAUSE.

BY J. M. BENNION, M.A., M.D., B.C. CANTAB., M.R.C.S. ENG.

THE patient, a married man, aged 40 years, was a painter by trade. His family history and his health previously to the present illness were satisfactory. On Nov. 4th, 1907, he came to my surgery complaining of pains in both thighs and forearms, which apparently were in the muscles. I gave him a mixture containing 15 grains each of sodium salicylate and potassium bicarbonate three times a day. One week later he consulted me about his arms being "swollen." On inspection both forearms were noted full and rounded. The skin was neither reddened nor hot. There was marked pitting on pressure on the dorsal aspects. The œdema was located to the posterior surface and the upper half of each forearm. On the backs of either hand were a few chilblains but no open wounds. The legs, feet, and the rest of the body were free from œdema. The patient was advised to give up work temporarily. The arms were massaged and he was ordered a mixture containing five minims each of nux vomica and Fowler's solution. By Nov. 20th the œdema of the left forearm had disappeared and that of the right was less marked. On the 22nd some swelling of the lids of the left eye was noticed. The lids of both eyes were very œdematous on the 24th. A few red blotches on the cheeks were also observed. The temperature and pulse were normal and remained so throughout the illness.

On Nov. 25th I asked my partner, Mr. T. W. Bailey, to see the patient with me. He was unable to find a cause for the man's condition and suggested his taking a mixture of iodide and mercury. On the 26th the œdema of the eyelids was less but it had spread over both cheeks. The patient complained of tenderness on pressure over both sterno-mastoid muscles and down the back of the neck. The voice was a little husky. He was put on a mixture containing 15 minims of liquor hydrargyri perchloridi and three grains of potassium iodide thrice daily. On the 27th the œdema of the face was less evident. The skin over both mastoid bones and sterno-mastoid muscles was slightly red and pitted a little on pressure. Œdema of the left forearm had reappeared. On the 28th the neck was more swollen and the voice was almost gone. The uvula and faucial pillars were injected and swollen. Both forearms were œdematous.

By Dec. 1st the patient, who had been in bed during the previous week, was better. The œdema of the eyelids, face, and neck had cleared up. The voice was less hoarse. The doses of mercury and iodide were increased to 30 minims and five grains respectively. On the 4th the patient felt quite well. The voice had quite returned. There was still slight œdema of both forearms. He was allowed out of doors on the 10th and no sign of œdema of either forearm was present after the 13th. The patient resumed his work early in January and has kept quite well up to the present time (April 18th).

The appearance of œdema in a patient is usually an important physical sign giving a clue to the nature of the disease. In the case described a careful examination of the man revealed no cause for his condition. The heart was sound and the urine was free from albumin. No evidence of thrombosis of any veins of the arms or elsewhere could be found. Angio-neurotic œdema[1] was considered as a possible explanation. But the history and clinical features of the

[1] Cf. Osler, third edition, p. 1140.

case, which differed in so many details from the ordinary description of this rare disease, certainly did not confirm this hypothesis. The man's occupation threw no light on his condition. I might also add that there was no history of lead colic and no symptom suggestive of lead or any other chemical poison. The chilblains from which the patient had suffered in winter time before could not be the cause of the "œdema."

The *fons et origo* of the patient's illness is difficult to fathom. As a possible solution of the problem of diagnosis I should be inclined to suggest that the "œdema" was due to some disturbance of the normal vaso-motor mechanism. As regards the drug treatment of the case the mixture of iodide and mercury seemed to have some beneficial effect.

St. Mary Cray.

A CASE OF SUBCLAVICULAR DISLOCATION OF THE HUMERUS.

By WILLIAM BOURNE HALLOWES, L.R.C.P., L.M., L.R.C.S. IREL.,

SENIOR SURGEON, NEWARK HOSPITAL; CERTIFYING FACTORY SURGEON, NEWARK DISTRICT; MEDICAL OFFICER TO THE POST OFFICE.

THE rarity of the above injury is my reason for placing it on record.

The patient, a burly Scotsman, about 15 stones in weight, came to see me one evening some few months ago stating that he thought his right shoulder "was out." He told me that on the same afternoon he was riding in a tram at Lincoln, when suddenly discovering that he was being taken farther than he wanted to go he jumped up and left the car while it was going rapidly; at the time he was carrying two parcels on his left arm. He said that he was thrown violently forwards but was unable to state accurately how his right hand came in contact with the ground. However, a lacerated wound over the thenar eminence seemed to indicate that, owing to the impetus given to him by the car, his right arm as he fell was extended in an outward and backward direction when his hand struck the ground. On removing his clothes a glance sufficed to verify his diagnosis, extreme flattening of the deltoid, marked prominence of the acromion, and a deep sulcus over the glenoid cavity (into which three or four fingers could be pressed with ease) indicating the absence of the head of the humerus from its normal position. Closer investigation and palpation revealed the fact that the head of the humerus was not in the axilla, neither could it be felt by careful examination in that region. A globular swelling situated below the middle and outer third of the clavicle, the shaft of the humerus pointing in the most marked manner outwards and somewhat backwards, and complete inability to approximate the elbow to the side, proved beyond doubt that the case was one of those so rarely met with—viz., complete subclavicular dislocation of the humerus.

Placing the patient flat on his back and flexing the elbow-joint I firmly gripped the lower end of the humerus and applied extension downwards, my object being to clear the coracoid when the time came for employing rotation outwards. After a few minutes' extension, gradually applied with increasing strength, the globular swelling had considerably moved downwards from its position immediately below the clavicle; then suddenly rotating outwards, followed instantly by bringing the arm sharply across the chest, I had the satisfaction, at the second attempt, of feeling and hearing the head of the bone slip back into its normal position. Considerable swelling of the parts in the vicinity of the joint followed the reduction, and a well-marked globular ecchymosis indicated for several days the position occupied by the head of the humerus immediately below the middle and outer third of the clavicle. The limb was placed in a triangular bandage. On the following morning passive movements were commenced and cautiously increased day by day, the patient being exhorted to use great care in gradually resuming the usual movements of the joint and limb, which instructions he faithfully carried out until complete recovery resulted.

Bryant[1] gives an illustration of this injury and says: "Subclavicular dislocations in which the head of the humerus rests below the clavicle on the sternal side of the coracoid process are exceedingly rare. I have never seen a complete example." Lower down in the same paragraph he says: "The bulk of cases recorded as of the subclavicular kind are probably subcoracoid." Rose and Carless[2] say: "The subclavicular variety is very uncommon and merely an exaggeration of the subcoracoid, the head of the humerus passes further inwards and lies deeply under the pectoralis major, on the second and third ribs." Keen and White,[3] under the head of anterior dislocation, say: "These present two varieties, the subcoracoid and the intracoracoid, according to the distance to which the head of the humerus is displaced inwards. An extreme form of the latter is sometimes called the subclavicular."

Newark, Notts.

[1] Practice of Surgery, fourth edition, 1884, vol. ii., p. 360.

[2] Manual of Surgery, sixth edition, 1905, p. 627.

[3] American Text-book of Surgery, third edition, 1900, vol. i., p. 436.

Medical Societies.

ROYAL SOCIETY OF MEDICINE.

OBSTETRICAL AND GYNÆCOLOGICAL SECTION.

Tuberculosis of the Fallopian Tube.—Cæsarean Hysterectomy.—Excretion of Creatinin.—Intra-uterine Death of the Fœtus.

A MEETING of this section was held on April 9th, Dr. HERBERT R. SPENCER, the President, being in the chair.

Dr. H. MACNAUGHTON-JONES read a short communication on the subject of Primary Unilateral Tuberculosis of the Fallopian Tube. He briefly reviewed the more recent etiological and histological points bearing on tuberculosis of the female genitalia, dealing with the relative frequency with which the various organs are affected from the vulva to the ovary. The occurrence of primary tuberculosis in any of the genitalia was not common but a unilateral primary tuberculosis was very rare. His communication dealt with primary unilateral tuberculosis of the Fallopian tube, of which he had met with two instances, and he had one case of primary tuberculosis of both tubes. In all these the rest of the genitalia were healthy. The details of the three cases were given and all the removed tubes were shown, together with the microscopical sections. In the case which was the source of this communication a tuberculous pyosalpinx was removed six and a half years ago. The patient had had one twin pregnancy and three other pregnancies since. He had recently to perform on this patient a cœliotomy, 39 days after labour, for an extensive septic perimetritis (the section of the matted adnexa was shown with the epidiascope). There was no evidence of tubercle. She was now perfectly well. All the five children were strong and healthy. Mr. J. H. Targett and Dr. Cuthbert Lockyer had made the reports. He (Dr. Macnaughton-Jones) had received replies from some 35 leading gynæcologists in the United Kingdom and abroad before bringing the case forward as to the records of such a condition. Only in seven of the home clinics were there records of such a lesion and in but three of the foreign.

Dr. KEDARNATH DAS of Calcutta communicated a short paper on Three Cases of Cæsarean Hysterectomy for Atresia of the Vagina which was read by the honorary secretary. Traumatism during labour in which instruments were used was the cause of the condition in each case. Two of the cases were complicated with vesico-vaginal fistulæ which had resisted attempts to close them, although in one case a recto-vaginal fistula had been closed. In the first case the mother died, probably from the infection of the peritoneum through the vesico-vaginal fistula. In this case the child lived. In the second case the mother lived but a dead fœtus was removed from the uterus. In the third case both mother and child lived. Vesico-vaginal fistula was frequent in India. The occurrence of conception in such peculiar circumstances was worthy of note.

Dr. C. J. NEPEAN LONGRIDGE read a short communication on the Creatinin Excretion of Lying-in Women during the most active period of involution of the uterus. The paper was based on 90 estimations of creatinin and 180 estimations of the total nitrogen in the urine. The patients were delivered in Queen Charlotte's Lying-in Hospital and were kept upon a creatinin-free diet during the time they were under observation. The endogenous creatinin alone was estimated.

It was found that the creatinin excretion maintained practically a level line and was probably not increased by the involution of the uterus, a result which was in harmony with the recent work on creatinin excretion. By applying the conception of autolysis to the process of involution of the uterus it was thought that a clearer idea of that process might be obtained. A very brief *résumé* of the main facts concerning autolysis was given, stress being laid on the fact that it was most rapid in an acid medium and in a bloodless organ. Dr. Longridge had observed that the wall of an autolysing uterus was acid in reaction and considered that the rapidity of the first stage of involution was due to this fact and to the fact that the uterus is anæmic during the first four or five days after delivery in a normal case. This anæmia is due to two factors, the retraction of the uterus and the effect of the kinking of the uterine arteries in reducing the blood pressure in them after delivery. Dr. Longridge thought that the conception of autolysis would help to explain many obscure points of uterine pathology, such as super-involution of the uterus and the changes in fibroid tumours, and would lead to considerable clarification of their ideas in regard to the relation of the liver to the toxæmia of pregnancy.

Dr. HERBERT WILLIAMSON and Dr. EARDLEY L. HOLLAND communicated a paper on a case of Intra-uterine Death of the Fœtus occurring in five consecutive pregnancies. The case was recorded of a patient, aged 24 years, who had given birth to two stillborn children at the twenty-sixth and twenty-eighth weeks of gestation respectively. Careful examination of the patient and her husband failed to reveal any signs of syphilis and no history of infection could be obtained. During the course of the next two years she gave birth to two more children, stillborn, at the eighth month. In her fifth pregnancy the child was found to be alive in the thirtieth week, and the induction of premature labour was recommended. Three weeks later she was spontaneously delivered of a stillborn child in Queen Charlotte's Hospital. Sections of the fœtal organs stained by Levaditi's method revealed the presence of the spirochæta pallida. She became pregnant again before the menses reappeared and throughout this pregnancy was treated with small doses of mercury and iodide of potassium. When examined on Oct. 17th the uterus reached to the costal margin and the fœtal heart could be heard. It was believed that nine lunar months' gestation had been completed and it was thought advisable to run no further risk but to induce labour. Labour was induced on Nov. 2nd and she was delivered of living twins, a boy and a girl. Both children were obviously premature and the amniotic sac of the female child contained an excess of liquor amnii. The children survived only a few days and post mortem neither showed syphilitic lesions, nor could spirochætæ be discovered in sections of the organs. Dr. Williamson and Dr. Holland brought forward the case as a contribution towards the pathology of intra-uterine death and stated their opinion that Levaditi's method of demonstrating the spirochæta pallida has given a new means of diagnosis and new indications for ante-natal treatment.

MEDICAL SOCIETY OF LONDON.

Malta Fever.

A MEETING of this society was held on April 27th, Dr. J. KINGSTON FOWLER, the President, being in the chair.

Colonel D. BRUCE, R.A.M.C., read a paper on Malta Fever. He said that in 1904 as the incidence of Malta fever among the garrison of Malta had increased to a marked extent the Royal Society, at the request of the Admiralty, War Office, and Colonial Office, sent out a Commission to Malta to investigate the disease. From the results of the experiments made by the Commission it seemed most probable that the micrococcus Melitensis (Bruce), the cause of the fever, gained an entrance to the body by way of the alimentary canal, and therefore by some infected food or drink. That led to an examination of foodstuffs, and among these the milk of the goat was one of the most important. Then followed the remarkable discovery that the goats in Malta acted as the reservoir of the virus of the fever. The goat was very much in evidence in Malta and supplied practically all the milk used. It must be confessed that the Commission had little hope that an examination of these animals would yield anything. Several goats had been inoculated and fed with the micrococcus and the result watched. There was no rise of temperature, no sign of ill-health in any way, but in a week or two the blood was found to be capable of agglutinating the specific micro-organism. Even then the goat seemed such an unlikely subject for Malta fever that the observation was in danger of lapsing. Nothing more was done for several months when by accident the matter came up again and it was decided to repeat the inoculation experiments. A small herd was procured for the purpose and, as an ordinary precautionary measure, their blood was examined before inoculation. Much to the surprise of the Commission several of them were found to react naturally to the agglutination test and that led to the examination and the discovery of the micrococcus Melitensis in the blood, urine, and milk. Some thousands of goats in Malta were then examined and the epoch-marking discovery was made that 50 per cent. of the goats in Malta responded to the agglutination test and that actually 10 per cent. of them were excreting the micrococci in their milk. Monkeys fed on milk from an affected goat, even for one day, almost invariably took the disease. At that time, curiously enough, an important experiment on the drinking of goats' milk by man took place accidentally. That was the case of the s.s. *Joshua Nicholson*. In 1905 this ship shipped 65 goats at Malta for export to America. The milk was drunk in large quantities by the captain and the crew, with the result that practically everyone who drank the milk was struck down by Malta fever. 60 of the goats (five having died) on arrival in America were examined and 32 were found to give the agglutination reaction, while the micrococcus Melitensis itself was isolated from the milk of several of them. Preventive measures were first begun in Malta in June, 1906. Of course, much opposition and prejudice were met with at first, but by dint of argument and explanation most of the regiments and military and naval hospitals agreed to banish goats' milk from their dietary. The result was very striking, for in 1907 there were only seven cases of Malta fever in the soldiers of the garrison and none at all among the sailors. It was evident, then, that the rational mode of preventing Malta fever was to keep people from drinking infected goats' milk. It was almost certain that practically all cases of Malta fever were caused in that way. The cases which had arisen in laboratories by accidental inoculation showed that other methods of infection were possible, but the fact that practically Malta fever ceased in the garrison on goats' milk being banished from the dietary was sufficient proof that all other modes of infection might be ignored. The seven cases of Malta fever among the garrison which occurred in 1907 were almost all traced to the drinking of goats' milk. It would be thought that as soon as the discovery was made known to the Maltese they would at once have set about purifying their herds of this infection. But this was not so. So far as Colonel Bruce was aware, up to the present time not a single infected goat had been slaughtered or anything done to remedy the outrageous state of affairs. At the present moment the Maltese goatherd was leading about his diseased animals and selling to his unwary clients an emulsion of micrococcus Melitensis as pure milk! It was a pity that in a long chronic disease, such as Malta fever, which seemed interminable alike to medical man and patient, there was no drug which would help to cut it short. But up to the present no specific drug had been discovered. They were driven, then, to treat the symptoms as they appeared. Some work had also been done in the treatment of this fever by anti-sera, but with no success. Malta fever had also been treated of late years by the injection of dead micrococci. It was constantly stated in the medical journals that that had given good results, and Malta fever was quoted as an instance of a disease which was successfully treated by that method. Reid and Bassett-Smith of the Royal Navy had published results but he (Colonel Bruce) must confess after reading their papers that he failed to see any proof whatever of that disease being modified for the better by these injections, even when controlled by the opsonic index.

—After a brief discussion of the paper by the PRESIDENT, Dr. J. V. BELL, and Dr. E. D. MACNAMARA, Colonel BRUCE replied.

The PRESIDENT then announced that the Fothergillian gold medal for the best essay on some branch of practical medicine or practical surgery proposed by the trustees of the Medical Society of London or for a literary work on some branch of practical medicine or surgery had been awarded to Sir Almroth E. Wright.

HUNTERIAN SOCIETY.

Discussion upon Rheumatism.

A MEETING of this society was held on April 8th, Mr. F. ROWLAND HUMPHREYS, the President, being in the chair.

Dr. FREDERICK TAYLOR opened a discussion on Rheumatism. With regard to its pathology he was convinced that it was an infectious disorder, and almost certainly microbic. The profession rightly demanded rigid proof of the specificity of an organism. With regard to diseases having a relationship to rheumatism, but once thought to be distinct, the first was chorea. Chorea was obviously toxic rather than a purely nervous disease. That it belonged to the infectious group was shown by the occasional occurrence of endocarditis in cases in which there had been no previous rheumatism, by the great frequency of endocarditis in fatal cases, and by the resemblance in the manner of death between some fatal cases of chorea and other nervous diseases such as hydrophobia and tetanus. Those three diseases were alike in being almost solely infectious disorders of the central nervous system and different in the area chiefly affected. The association of tonsillitis and various erythemata with rheumatism was recognised long ago. There were many forms of infective arthritis other than acute rheumatism, and it was reasonable to suppose that such affections in association with erythema and urticaria were due to some other condition, possibly some other toxæmia, than that of acute rheumatism. Wright thought that hæmorrhagic, erythematous, and urticarial lesions were often due to deficiency of calcium salts in the blood. He (Dr. Taylor) did not adopt the idea that an erythema was necessarily a manifestation of rheumatism. Again, it was difficult to look upon tonsillitis as necessarily due to rheumatism. The tonsils were specially vulnerable to causative microbes. The researches of the skilled bacteriologist were specially needed in regard to the relationship between acute rheumatism and chronic rheumatism or osteo-arthritis. Osteo-arthritis in the middle-aged and the old was very widespread and occurred in many thousands who had never had acute rheumatism. Hyperpyrexia was a complication of rheumatism which was a profoundly interesting mystery. From 1873 to 1877 there was an epidemic of hyperpyrexial cases in the British Isles which he did not think had been repeated. A committee of the Clinical Society reported on a number of such cases but without reaching any definite conclusion. It might be said that salicylic acid would guard against a recurrence of such epidemics, but the salicylate treatment was introduced, though perhaps not fully pushed, during the years when hyperpyrexia was rife. During 18 years (1888 to 1905) the admission of cases of acute rheumatism to Guy's Hospital numbered 1887, yet there were only seven cases of hyperpyrexia, two of which proved fatal. With regard to the salicylates, he considered 20 grains every four hours to be the best dosage. The question remained how to prevent carditis; and he would be glad if any subsequent speakers could say whether that had been any less frequent during the last 40 years. His impression was that rheumatic heart disease was as prevalent now as ever. Much had been said about the control of carditis, but he dissented from most of it, and when the heart was primarily affected carditis could not be obviated. He asked what view ought to be taken of rheumatism in regard to insurance practice. What view ought to be taken with regard to a proposer who had had within a few years a sharp attack of acute rheumatism, when the heart on examination appeared quite sound? 15 or 20 years might intervene between an attack of rheumatism and the onset of cardiac disease.

Dr. F. J. POYNTON said that to him rheumatism was a specific disease. It was not strictly a fever, as there might be no fever. He and Dr. Paine had investigated 40 cases in ten years and had isolated the diplococcus of the disease from many parts of the body. They were the first to reproduce experimentally and repeatedly rheumatic pericarditis and endocarditis. The conclusions which he and Dr. Paine had arrived at were that the micrococcus could be isolated in pure culture from the cardinal lesions of rheumatism, could by injections into animals cause similar lesions, and could be again isolated from those lesions in pure culture. He exhibited a number of specimens showing the artificially induced lesions in animals.

Dr. T. J. HORDER said that his attitude was that of a sceptic rather than that of an opponent of Dr. Poynton's views. Such of the specimens of the diplococcus rheumaticus as Dr. F. W. Andrewes and he had been able to investigate had given reactions identical with those of the fæcal streptococci obtained from cases of malignant endocarditis. He believed that the causal factor of rheumatic fever was as yet undiscovered, and that such bacteria as had been obtained had been connected with secondary invasions in a body invaded by the rheumatic virus.

Dr. A. P. LUFF dealt with the irregular manifestations of rheumatism. For every case of acute rheumatism the general practitioner perhaps saw a hundred of chronic rheumatism. The latter was really an affection of the white fibrous tissue, which had led Sir William Gowers to coin the word "fibrositis." The word "rheumatic" in that connexion was unfortunate. The condition was frequently started by cold and wet and it might be started by strain, as in the case of tennis elbow, golfer's elbow, &c. In the treatment the salicylates were useless except as relievers of pain. For the pain he knew nothing better than a combination of aspirin and pyramidon. For the fibrositis he knew nothing to equal iodide of potassium and he gave it in the largest possible doses. The local fibrositis might be relieved by the application of heat or by ionic medication. In his experience there was no necessity to diet patients suffering from fibrositis; there was no reason for the belief that it was associated with gout. He urged that the profession should finally abandon the uric acid fetich, uric acid being a harmless by-product.

Dr. F. J. SMITH asked for a definition of malignant endocarditis. The difference between it and ordinary endocarditis was only one of degree and he was in the habit of teaching that every endocarditis was ulcerative. The term endocarditis should be used with the addition of an adjective to denote the kind of microbe causing it when that was known.

Dr. O. F. F. GRÜNBAUM asked Dr. Poynton in what percentage of cases his cultures were obtained during life and ten days or more before death. That was very important, as a terminal invasion occurred in so many diseases. More evidence was wanted that the organism of Poynton and Paine was different from that of Andrewes and Horder.

Dr. SEYMOUR TAYLOR said that not infrequently one or other parent of the choreic child was rheumatic and the disease was preceded by or complicated rheumatism in many cases. In severe cases of chorea there was frequently a rise of temperature. In 30 per cent. of the cases the child had endocarditis or pericarditis. Moreover, chorea yielded to treatment by salicylates as quickly as to arsenic or other so-called remedies. He had had a child in hospital without a history of rheumatic fever who suffered from chorea. Lumbar puncture was done and Poynton's micro-organism discovered. That patient was quickly cured by salicylate of sodium.

Dr. POYNTON, in reply, said that the question of a terminal infection in his cases could be disposed of. Some of the patients from whom the micrococcus was obtained lived for years afterwards.

The discussion was adjourned.

UNITED SERVICES MEDICAL SOCIETY.

Probable Diseases of a Territorial Army.

A MEETING of this society was held on April 9th at the Royal Army Medical College, Millbank, London, S.W., Inspector-General Sir HERBERT MACKAY ELLIS, K.C.B., K.H.P., being in the chair.

Captain W. SALISBURY-SHARPE, R.A.M.C. (Vol.), read a paper entitled "The Diseases likely to Occur on the Occasion of the Mobilisation of a Territorial Army." He divided such diseases as regards causation into those due to a common cause and those directly communicable from man to man, and as regards treatment into the specific infectious fevers and the group of alvine disorders, including enteric fever. He pointed out that in the first line it would not be possible to make use of buildings for hospital purposes owing to the absence in many cases of such buildings as might be suitable for the purpose. The water-supply, again, would have to be taken from shallow wells or open streams, both of which needed careful protection on account of their liability to fæcal pollution. He next passed to the question of the disposal of excreta and pointed out that the great object to be aimed at was the elimination of all causes tending to favour the breeding of flies, which were far more fruitful causes of food contamination than was air-borne dust; he

also referred to various facts connected with the incidence of summer diarrhœa at times and in places where flies were more likely to be an active cause than dust. He quoted from the experience of Dr. H. H. Tooth and others in South Africa in support of his contention. In his opinion the best way to dispose of excreta, keeping the above object in view, was that advocated by the late Dr. G. Vivian Poore in his "Flies and the Science of Scavenging." That method was the burial of all excreta in shallow trenches before the eggs of flies could be laid in them. Half an acre should on this principle be sufficient for 1000 men for a year. The method had the advantage of being simple and requiring but little in the way of appliances. Stationary hospitals would as a rule be in the neighbourhood of, if not actually in, a town of some size. The water-supply would be that of the town, but it would be advisable to dispose of the refuse of these institutions by burial and not by connecting the hospital with the drainage of the town in question. Coming to the diseases actually to be expected on the occasion of mobilisation, he said that in his opinion those of the alvine class would be by far the most important, and he emphasised the importance of both constipation and diarrhœa being early recognised and treated, as being both of them likely to be precursors of more serious disorder. Dysentery and enteric fever were then touched on, together with a reference to the difficulty of distinguishing which amongst the enormous mass of alvine and febrile diseases were not enteric fever. The isolation of cases of enteric fever was insisted on. Diphtheria and measles were referred to and the danger of the latter when large numbers of men were congregated together was mentioned. Pneumonia and rheumatic fever were also touched on. In speaking of small-pox it was pointed out that no provision was made for the effective vaccination of the Territorial Army. The absence of systematic secondary vaccination in this country and the number of individuals who escaped even the primary operation were considered to constitute a grave danger. In conclusion Captain Salisbury-Sharpe said that he had worked on the assumption that some months would elapse between mobilisation and the actual outbreak of hostilities or invasion. His paper was not intended to refer to actual war conditions.

Colonel DOUGLAS WARDROP, R.A.M.C., said that he doubted if there would be so much enteric fever as Captain Salisbury-Sharpe anticipated; he thought that with carefully selected camps and men coming from healthy homes better results might be hoped for. Indian experience made him sceptical of the infallibility of an earth system of disposal such as advocated by Dr. Poore and supported by the lecturer, in the absence of a highly trained conservancy establishment.

Major W. S. HARRISON, R.A.M.C., said that it was a pity that no reference had been made to the necessity of educating the soldier in peace for the necessary exposure to infection that he must expect in war. He referred to the desirability of protective inoculation against enteric fever, pointing out that recent experiments showed that the enteric fever bacillus could live for 60 days in unsterilised earth, and that therefore in an earth system of disposal there would be a danger of establishing foci of infection.

Lieutenant-Colonel H. J. FLETCHER, R.A.M.C., referred briefly to the experience of the Americans during the early part of the Spanish war and expressed the opinion that principal medical officers of territorial divisions should take steps in advance of mobilisation to counteract enteric fever.

Major F. J. WADE-BROWN, R.A.M.C., and Lieutenant-Colonel C. H. MELVILLE, R.A.M.C., also took part in the discussion.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF OBSTETRICS.

An Abnormal Placenta.—Operative Treatment of Puerperal Infection.

A MEETING of this section was held on April 10th, Mr. E. HASTINGS TWEEDY, the President, being in the chair.

Mr. J. SPENCER SHEILL read a pathological report by Dr. R. J. ROWLETTE on the Abnormal Placenta exhibited at the previous meeting of the section, as some of the Fellows then present had stated that they had never seen a specimen similar to the one exhibited by Mr. Sheill. The placenta was slightly larger than normal and quite firm. The umbilical vessels were very congested and stood out prominently on the surface of the placenta. Completely surrounding the attachment of the cord and at a distance of about two inches was a raised ridge, varying from one and a half to two and a half inches high; it bent towards the cord so as to form a deep fossa, the inner surface of the ridge being in apposition with the surface of the placenta. The membranes were closely adherent to the surface of the placenta, passing into the depth of the fossa and then over the ridge. Under the microscope the placental tissue was normal. At the ridge, however, the membrane was lifted from the tissue by a great mass of fibrinous coagulum which was quite firm. The greater part of the ridge seemed to be composed of fibrin. The condition was apparently due to a sub-membranous hæmorrhage.—Sir ARTHUR V. MACAN expressed the opinion that it was simply an exaggerated placenta circumvallata.—Mr. SHEILL, in reply, said that although he was unable to suggest a probable cause for this placental abnormality yet he could not agree with Sir Arthur Macan's opinion, inasmuch as he understood that the so-called placenta circumvallata invariably showed the chorion forming a rigid annular fold at the inner limit of the margin. Neither did he think that it was a case of placenta marginata, for in these the chorion usually left the placenta *before* reaching its margin, thereby leaving a border free of membrane. In his specimen the chorion was attached all round to the placental margin in the usual way.

Dr. A. N. HOLMES opened the adjourned discussion on Sir Arthur Macan's paper on the Operative Treatment of Puerperal Infection. He said that there was a difficulty in deciding with a case not undoubtedly septic as to whether an operation was justifiable or not. He had seen cases apparently at the point of death get perfectly well. Evacuation was, of course, the best means of dealing with localised pus; and the making of an opening through the posterior fornix—an easy operation which did not necessitate the removal of the patient from bed—had been followed by good results. When the number of septic cases that existed was considered the mortality was really very small, and it would be unwise to operate in all cases until differential diagnosis was more perfect.—Professor ALFRED J. SMITH said that they accepted generally the two great classes of infection—pyogenic and saprophytic; and they divided the former into the forms in which the infection was carried—namely, (1) by the lymph-ducts and (2) by the blood stream. Dr. Bumm had demonstrated the fact that if a patient was infected by the streptococcus it developed and spread with such rapidity that there was no time for the surgeon to intervene. They were all in agreement as to the necessity of draining in cases of pus formation, though there was a difference of opinion as to the way in which they should reach the abscess. Sir Arthur Macan had proposed a special operation with a view to prevent the occurrence of general peritonitis, but he (Professor Smith) could not understand the advantage of packing the entire pelvic cavity, seeing that the uterus, in a case of septicæmia after confinement, was almost up to the umbilicus, and that on the posterior wall of the uterus there was the great lymphatic plexus carrying large numbers of streptococci. On the Continent and in America cases had been successfully treated by ligation of the inflamed veins but the whole difficulty consisted in deciding when they should interfere by operation.—Dr. R. D. PUREFOY said that he refused to believe that any examination of the contents of the uterus would enable them to make up their minds in every case, or even in any considerable number of cases, on the point of operative interference. In the cases of streptococcus infection the spread of the disease was so rapid and its diffusion through the system so general that surgical measures did not hold out hope of saving life.—Dr. H. JELLETT said that the more he thought about the subject the more hopelessly he seemed to be at sea. He could not understand where the operative treatment of acute puerperal fever came in. The operative treatment of local infections had been recognised for some time, but this was not what they were concerned with. Even if the presence of streptococci in the uterus was shown the bacteriologist could give them no help as to the virulence of the organism until after injection into animals, and by that time either the patient was better or it was too late for operation. If the infection had not extended into the peritoneal cavity it was contrary to all present-day ideas to open up the cavity. If the infection had gone beyond the uterus the analogy of limb

infection was fallacious, because the uterus was so intimately bound up with its connective tissue and lymphatics that the removal of the infection by removing the uterus seemed hopeless. If a patient got into a chronic condition of pyæmia he could imagine that by removing the source of the infection in the uterus they might do a certain amount of good, as the extension of infection during the operation might be successfully overcome by the resistance set up by a long period of vaccination, so to speak. But in the early stage it did not seem possible to remove the uterus with its load of infection and open up the peritoneal cavity without giving the patient such a dose of the organism as would do away with any good got by removing the prime source of the infection.—Dr. O'FARRELL said that Professor Frederic E. Sondern of New York, writing in the *New York Medical Journal* of June 16th, 1906, claimed that by means of a general and differential leucocyte count he was able not only to ascertain the presence of a septic infection but also to estimate the body resistance. Relative increase in polymorphonuclears indicated the presence of sepsis and the degree of leucocytosis indicated the condition of the body resistance. Professor Sondern considered it so important that he had an assistant on duty in his laboratory day and night so as to be able to examine any patient's blood and let the surgeon know without delay whether the blood conditions were such as to make operation desirable.—Sir W. J. SMYLY said it was unlikely that any one of them would meet with more than a very few cases in which operative interference was required and as it had been laid down that they could not judge the value of any particular line of treatment upon less than 100 cases it would probably take some centuries before any one institution would yield a sufficient number of cases. It was evident that the great majority of cases spoken of by Sir A. Macan were localised, not general, sepsis. In douching the uterus they were liable to do harm by opening up channels for the absorption of septic materials. One of the first things they had to do in a case of acute fever following childbirth was to try to clear the uterus with the finger, and he did not think that there was any difficulty in doing so if they gave the patient an anæsthetic. He was not inclined to give up the flushing spoon-curette, and he thought that the introduction of the brush would be more dangerous than the spoon.—The PRESIDENT said that he divided puerperal infection into the mild, acute, and chronic types. The mild type was eminently suited for surgical interference. The chronic type was that dealt with for the most part by Sir A. Macan, and the acute type was outside the pale of all treatment. He divided operative treatment into the mild, the intermediate, and the drastic. Under the mild he put raising the bed, douches, exploration of the uterus, draining pus pools in the uterus, replacing a retroflexed uterus, and the removal of pieces of placenta and membrane by the fingers. These could be undertaken without chloroform in the patient's own bed and were highly successful. The intermediate (Pryor's) operation could be done in the patient's own bed but required an anæsthetic; it could be conducted without fear of injuring the patient, and it was largely diagnostic as well as curative. If they could get a pelvic peritonitis well established the patient would probably recover and no procedure was better for that purpose than plugging the whole pelvic cavity with iodoform gauze. He believed that it impeded the circulation in the lymphatics. Anti-streptococcus serum was worthless when the disease had developed, though valuable as a prophylactic remedy. Where pus had burst into the abdomen he gave the serum straight off.—Sir ARTHUR MACAN, in reply, said that it might require a hundred cases to make statistics but it did not require that number to enable them to have ideas on the subject. He had himself expressed his objection to the term puerperal fever but there was no other term that embraced all the states, including sepsis. The uterus had been recognised for a long time as the source of the infection, and theoretically they must recognise a point at which the removal of the septic centre would be sufficient to stop the spread of the disease. The earlier they operated the more successful they would be, but the more doubtful it would be as to the success of the operation.

WINDSOR AND DISTRICT MEDICAL SOCIETY.—A meeting of this society was held on March 25th, Mr. W. A. U. Thomson (Maidenhead), the President, being in the chair.—Mr. William B. Holderness (Windsor) showed Preparations from a Carcinomatous Kidney removed by Mr. E. Hurry Fenwick in February. The patient, who was a man, aged 68 years, had now resumed his work.—The President showed a man, aged 33 years, with enormous Varicosities over the abdomen and thighs.—Mr. Joseph O. Skevington (Windsor) showed a young woman with well-marked Broad Lines Traversing the Skin in the region of the right shoulder and breast. They were thought to be degenerative but the nature of their causation could not be definitely determined.—Mr. A. E. J. Barker (London) read a paper on the Pre-operative Treatment of Non-malignant Disease of the Stomach. He said that surgeons were frequently asked to operate on patients with chronic gastric troubles which were not beyond the reach of other than operative measures. He then gave an outline of a typical case of this kind in which the patient suffered from chronic dyspepsia of some years' standing, with vomiting, wasting, epigastric pain and eructations, and described his own routine pre-operative course of treatment. This treatment, he said, always rendered an operation safer if it had to be performed, and might obviate the necessity for such interference if carried out thoroughly. The patient should be kept in bed. The food should be properly sterilised. The mouth and throat should be cleansed and any foul stumps of teeth should be extracted or stopped. The food most relied on by him was boiled bread and milk with salt, or beaten-up eggs, and carefully prepared broths. These should be given at regular intervals, and it was most important that they should be given in small quantities at a time, because the pylorus contracted under the stimulus of badly digested food and the material thus retained in the stomach was liable to decompose. A case illustrative of this was related in which repeated washing out of the stomach for several days caused a wonderful improvement in the condition of a much wasted man. He soon became cheerful and put on flesh, and no operation was necessary. Mr. Barker believed that it would be very advantageous to the patient if this procedure of lavage were adopted in the earlier stages of so-called dilated stomach.

WIGAN MEDICAL SOCIETY.—A clinical meeting of this society was held on March 12th, Mr. W. Berry being in the chair.—Dr. R. Prosser White read notes of several cases treated with a considerable measure of success by Vaccines and urged that in some cases where operation was hopeless or inadvisable this form of treatment should have a fair trial. He also exhibited the following cases: (1) Tuberculosis of the Hip with Sinuses, treated with T.R.; (2) Scirrhus of the Mamma, with a Staphylococcic Infection treated with Antistaphylococcic Vaccine and much improved; (3) Tubercle of the Testis, treated with Hetol; and (4) Follicullitis Decalvans treated with Antistaphylococcic Vaccine.—Dr. C. G. Edmonston showed the following cases: For Mr. Berry: (1) A case of Strangulated Hernia, where 38 inches of bowel were resected for gangrene; (2) Wiring of Fracture of the Lower Jaw (compound); (3) Thyroid-ectomy, local anæsthesia, solution of cocaine 1 per cent.; and (4) a case shown at a former meeting, with Abdominal Tumour, which had since disappeared.—For Mr. W. Mitchell Roocroft: (1) A Hæmatocele of the Lesser Sac treated by Operation; (2) Paralysis of the Muscles of the Right Shoulder due to strain; (3) case of Icterus, probably malignant; and (4) Epispadias.—For Mr. C. R. Graham: (1) Thiersch Graft; and (2) case of Biliary (?) Colic for Diagnosis.—Mr. C. M. Brady showed (1) a case of Excision of Half the Lower Jaw in a young girl for Sarcoma; and (2) a Meningocele in a very young Infant.—Dr. Harry Holmes showed a case of Cataract Extraction.—Dr. Blair showed a case of Multiple Serositis.

——A meeting was held on April 14th, Mr. Roocroft being in the chair.—Mr. W. Thelwall Thomas read a paper on Renal Calculi, Diagnosis and Treatment, based chiefly on the records of a series of 33 cases under his own care. Mr. Thomas emphasised the value of x rays in the confirmation of the diagnosis and suggested that if it were possible to obtain a really good skiagram a surgeon was barely justified nowadays in operating unless and until such a photograph had been obtained. He exhibited a large number of very beautiful x ray photographs taken by Dr. C. Thurstan Holland of Liverpool.—The paper was followed by a discussion.

Reviews and Notices of Books.

A Manual of the Practice and Theory of Medicine. By Sir WILLIAM WHITLA, M.A., M.D. R.U.I., LL.D., Senior Physician to, and Lecturer on Clinical Medicine at, the Royal Victoria Hospital; Professor of Materia Medica and Therapeutics in Queen's College, Belfast. In two volumes. London: Henry Renshaw. 1908. Pp. (two volumes) 1900.

Sir William Whitla states in the preface to this book that the aim of the work is to afford to the busy practitioner, in the most convenient and condensed form, a series of independent articles upon the different diseases (including those of the skin) which fall under the province of the physician. After a perusal of the two volumes we agree with the author that a more correct and suitable title for the work would have been "A Dictionary of Medicine" or "A Medical Index." Sir William Whitla feared, however, that such a nomenclature would lead to confusion as regards his "Dictionary of Treatment," to which the books now before us may be accepted as an introduction. The dictionary form of the work has necessitated a certain amount of repetition, as the aim of each article is to give a condensed and more or less isolated description of the etiology, pathology, symptomatology, diagnosis, and a brief *résumé* of the treatment of each medical affection. That portion of each article which deals with the subject of differential diagnosis is planned so that as far as possible cross-references are avoided, the reader being enabled to contrast the more important distinguishing clinical features of diseases liable to be confused with each other without having to turn to different portions of the work.

Sir William Whitla has succeeded in placing a vast amount of information within these two volumes. The various sections are well written and comprise a full account of the numerous diseases which are considered. The paragraphs dealing with etiology and pathology are fully up to date, the clinical phenomena are well described, while numerous valuable hints are given in regard to treatment. We have been particularly interested in certain of the sections. For instance, the remarks on broncho-pneumonia are well worthy of careful study, for the etiology of this condition is not generally understood. The author points out that two forms of the disease may be recognised, the primary and the secondary, and the causal factors at work differ in each case. In the primary form the etiological factors may be accepted as those which are present in ordinary acute lobar or croupous pneumonia, with the exception that the disease is practically confined to childhood. In the secondary form, whilst the pneumococcus is sometimes present, there are almost invariably other micro-organisms acting as well, and we agree with the author when he says that the generally accepted view of the origin of this form of the disease is that of a multiple infection in which the pneumococcus need not necessarily figure. A good account is given of the morbid anatomy of broncho-pneumonia and its clinical aspects are carefully detailed.

The section dealing with Bright's disease, acute and chronic, will also be found instructive, especially those portions dealing with treatment. Speaking of chronic interstitial nephritis the author maintains that there are few incurable conditions which the physician can approach with the same calm confidence of being able to prolong life and to retard the natural progress of a disease which, though ultimately proceeding to a fatal issue, may be modified or for a time arrested by judicious management. Useful directions are given as to the general course to be adopted with patients suffering from this condition.

Dyspepsia, the result of gastric neurosis, is considered at length, special stress being laid on the chemical pathology and on treatment. Three types of gastric neuroses are described: (1) sensory; (2) secretory; and (3) neuro-motor. This classification is a convenient and practical one. The student is liable to neglect a study of this common malady whilst attending the wards and the out-patient rooms, but when entering on practice he will require to systematise his knowledge on the subject and the sections contained in this text-book will help him to do so.

Excellent accounts are given of tuberculosis as affecting the various organs of the body, especially the pulmonary variety. The sections on the specific fevers are full and explicit, the remarks on diagnosis being especially valuable. The section devoted to enteric fever is one of the best in the book and we may draw the reader's attention to the observations on prognosis which will be found of considerable aid in actual practice.

We can cordially recommend this book to the practitioner as a useful work of reference. Its contents are rendered more suitable for this purpose by the fact that each volume contains a complete index to the two volumes, so that any required information can be obtained easily.

Diseases of the Nose and Throat. By HERBERT TILLEY, B.S. Lond., F.R.C.S. Eng. With 126 illustrations. London: H. K. Lewis. 1908. Pp. 539. Price 14*s.* net.

Mr. Tilley first gives a brief account of the anatomy and physiology of the nose. The next chapter consists of an all too short description of the examination of the nose and the methods used; this portion of the work might with advantage be considerably enlarged. He next proceeds with a description of the various forms of rhinitis. We notice that when describing the after-treatment he does not warn the tyro in nasal surgery that after the use of the galvano-cautery the patient should be prohibited from blowing the nose for some hours in order to diminish the risk of hæmorrhage. In dealing with rhinitis sicca a little more space might have been occupied, especially as regards the views of continental authorities that the bleeding polypus of the septum is often found in connexion with this disease. In membranous rhinitis we observe that the author admits the possibility of other infections being present besides that of the diphtheria bacillus. The part of the book on nasal reflex neuroses leaves nothing to be desired, the whole treatment of the subject being extremely temperate, and Mr. Tilley is to be congratulated on the excellent way in which he discusses the matter. He divides nasal obstruction into two classes—one in which the structural changes are brought about by mechanical factors, and another in which the general symptoms are due to an unnatural method of breathing. The preparation known as eudrinine is recommended as being the best local anæsthetic for operations on the septum. With regard to the etiology of nasal polypi both Woakes's and Yonge's theories are given but the preference of probability is given to Woakes's. When the reader comes to diseases of the accessory sinuses of the nose he will appreciate the intimate knowledge which is exhibited and the careful manner in which all operative procedures are discussed and described. In the frontal sinus operation the incision recommended is through the eyebrow. This occasionally has the disadvantage of destroying the hair bulbs and leaving a very unsightly scar. The only complaint we might make of this section is that the description of Killian's operation is, perhaps, enough for the expert but the information given is certainly not sufficient for the novice.

The second half of the book is devoted to diseases of the larynx. The author's instructions as to the use of the laryngoscope are sufficiently full. He lays much stress on the golden rule that when an adult complains of hoarseness or alteration of the voice of more than

a few weeks' duration a skilled opinion should be taken, and he very rightly says that many lives would be saved and much suffering avoided if this rule were only more widely recognised and acted upon. In tuberculous laryngitis rest of the voice is strongly insisted upon and milder forms of treatment are given precedence over the radical measures recommended by some authors. In removing foreign bodies from the trachea the direct method of removing the body through a Killian's tube is recommended and if this fails recourse should be had to tracheotomy. The chapters on paralysis and various neuroses are very clear and explicit. In discussing laryngeal vertigo all the various views that have been expressed as regards its origin are discussed. At the end of the book the author gives a collection of 75 prescriptions for various remedies for local application and internal administration.

Mr. Tilley's book, which we gather is in a way intended as a successor to the volume which he edited with Dr. F. de Havilland Hall, has certainly achieved a marked superiority over its predecessor. It is clearly written, well illustrated, and readable, and is a book to which students and practitioners of medicine may turn with confidence.

The Diagnosis and Treatment of Diseases of Women. By HARRY STURGEON CROSSEN, M.D., Clinical Professor of Gynæcology, Washington University; Consulting Gynæcologist to Bethesda Hospital, St. Louis, &c, St. Louis: C. V. Mosby; Medical Book and Publishing Company. 1907. Royal 8vo, pp. 812, 700 illustrations. Price 36.

THE most striking feature of Dr. Crossen's text-book is the large number of illustrations which it contains. They have been selected from all the most important works on gynæcology and are supplemented by original drawings showing the various methods of carrying out the proper examination of the pelvic organs. There are also some most interesting and helpful figures to indicate the areas of pain in different pelvic affections and the anatomical relations of the various structures in the abdomen. An ingenious device is adopted to demonstrate the limits of tumours or collections of fluid in the abdominal cavity. Black webbing is gummed on the abdomen over the area which it is wished to outline and in this way its exact limits are very clearly defined in the drawings reproduced. The book is almost entirely concerned with the diagnosis and treatment of the diseases of women. No notice is taken of other considerations such as etiology or pathology except so far as is absolutely necessary for the sake of completeness, and but a small amount of space has been taken up with detailed descriptions of the technique of major operations.

The author's teaching on the majority of subjects is sound and trustworthy. The chief facts are put clearly and succinctly and medical treatment is considered in considerable detail. After two chapters devoted to general points in diagnosis and treatment, the affections of the various genital organs are discussed, an anatomical classification being adopted. The section dealing with the indications for, and the use of, pessaries is particularly good and clear, while the operative procedures suitable for the treatment of backward displacements of the uterus are given very fully. After a very careful summing up of all the evidence available for coming to a certain conclusion as to the real dangers of fibroid tumours the author concludes that as a general rule such tumours are best removed and that in quite a notable percentage of the cases symptoms requiring treatment arise sooner or later. As he rightly points out, the question is a difficult one to decide because no one observer is able to follow the natural course of these patients for a sufficient length of time, and fibroids which are noted when first seen as giving rise to no symptoms may well be the cause of very considerable disturbances of the patient's health in after years. The known facts at our disposal are not yet sufficient to enable us to state precisely what are the possible and probable dangers to a patient who has a fibroid tumour of the uterus; nor, indeed, at the present day, when it is becoming, rightly or wrongly, more and more the custom for gynæcologists to remove these tumours in the early stages of their growth, are we likely to obtain a sufficient number of long histories of these cases to enable us to come to a certain conclusion. That they are not infrequently a source of danger is certain and that the best results are likely to follow their removal when still small is beyond dispute, but what are the chances of an individual patient running any risk to her life from the presence of a simple uncomplicated fibroid is a problem which we cannot answer with certainty. Other interesting questions, as, for example, the treatment of cancer of the cervix by abdominal section and the operative treatment of pelvic inflammation, are discussed fully and the author's conclusions are marked by sound judgment and are such as will commend themselves to most English gynæcologists.

The book is a good specimen of its class and is likely to prove helpful to the student.

Practical Diagnosis: the Use of Symptoms and Physical Signs in the Diagnosis of Disease. By HOBART AMORY HARE, M.D., B.Sc., Professor of Therapeutics in the Jefferson Medical College of Philadelphia; Physician to the Jefferson Medical College Hospital. Sixth edition, revised and enlarged. Illustrated with 203 engravings and 16 plates. London: Henry Kimpton. 1907. Pp. 616. Price 21*s*.

WHEN a student commences the study of practical medicine his thoughts are generally so taken up with the technique of eliciting physical signs and the recognition of the many varieties of adventitious sounds which may be heard, for example, on examining the chest, that he is liable to forget the importance of being able to deduce the necessary conclusions from these signs. In other words, his attention is devoted to obtaining physical signs rather than to reading them. Further, he is prone to rush at a diagnosis, basing his opinion upon one physical sign and forgetting that a correct diagnosis can only be arrived at by a consideration of an assemblage of signs and progression of symptoms. In a short paragraph placed opposite to the title-page of the volume now before us Dr. Hare expresses a similar dictum and adds: "It is as futile for a physician to attempt to base a diagnosis upon one symptom as for an architect to attempt to determine the appearance of a house by seeing one of the stones which has been removed from its walls."

Dr. Hare's intention in writing this book was to place before the physician and the student the subject of medical diagnosis as it is met at the bedside. To accomplish this the symptoms used in diagnosis are first discussed and their application to determine the character of the disease follows. That the author has successfully accomplished the task which he set himself is proved by the fact that a sixth edition of the work has been called for.

For purposes of reference the book will be found of special value since it is written on a plan most easily followed in practice—namely, forming a diagnosis by grouping the symptoms. For instance, if vomiting is a marked symptom in the case which is being investigated, in the chapter under that heading will be found a description of the various causes of vomiting and its diagnostic significance, together with the differentiation of each disease in which this phenomenon is met with. By carefully studying this work the student will obtain considerable insight into the information which may be obtained from careful observation. For instance, the chapters dealing with the hands and arms and the feet and legs contain numerous hints

which will prove of great aid in diagnosis. The many deformities of the limbs are admirably described and a careful consideration is afforded of the differential diagnosis of the various alterations in the appearance of the hands and feet produced by diseases of the nervous system.

When engaged as "clinical clerks," either in the wards or out-patient rooms, students will find this work of great value to them. For although clinical work can only be studied by the actual examination of patients, nevertheless a guide of the nature of Dr. Hare's manual is certainly desirable. The book is well printed and the numerous illustrations are beautifully executed.

The Black Death of 1348 and 1349. By FRANCIS AIDAN GASQUET, D.D. London: George Bell and Sons. 1908. Pp. xxv.–272. Price 6*s.* net.

Dr. Gasquet, who is the Abbot President of the English Benedictines, is well known as one of the most learned members of the great religious order which since the time of its foundation has given itself with special devotion to learning. The book now before us is a reprint of the first edition, which appeared in 1893, with one or two additions and corrections. The Great Pestilence, for the name "Black Death" was comparatively modern,[1] as Dr. Gasquet points out on p. 7, ravaged the whole of Europe during the period 1348–50. It was apparently a particularly malignant form of Oriental plague mainly of the pneumonic type. One unusual feature about the epidemic was the way in which animals were affected. Not only rats, but dogs, cats, and sheep suffered greatly. Pigs and cattle are also mentioned in contemporary records as being attacked with fatal results. The mortality amongst human beings was appalling; for instance, in England and Wales about half the whole population died. Such a cataclysm is of interest not merely from the medical point of view but even more from that of the historian and the student of social events. For, to quote Dr. Gasquet, the Great Pestilence "formed the real close of the Mediæval period and the beginning of our Modern age; ..... to use a modern expression, labour began then to understand its value and assert its power." In fact, all seemingly settled institutions were broken up and had to be built up anew.

Dr. Gasquet's book deserves careful study by all medical men and by all who are concerned with the health of the body politic. Its style is lucid and simple and we may add without fear of being misunderstood that the chief value of the book is that the statements are not those of Dr. Gasquet but of contemporary writers who wrote with first-hand knowledge. But the arrangement of these statements, their codifying, and the conclusions to be drawn from them are Dr. Gasquet's, which is as much as to say they are those of a learned, impartial, and judicious critic.

LIBRARY TABLE.

A Course of Practical Organic Chemistry. By T. SLATER PRICE, D.Sc., Ph.D., F.I.C., Head of the Chemical Department of the Birmingham Municipal Technical School; and DOUGLAS F. TWISS, M.Sc., A.I.C., Lecturer on Chemistry at the Birmingham Municipal Technical School. London: Longmans, Green, and Co. 1907. Pp. 239. Price 3*s.* 6*d.*—This book provides a most useful practical course in organic chemistry and is modelled on the lines of the Board of Education syllabus which is sufficiently comprehensive to have necessitated hitherto the consultation of different books for different parts of the subject. The syllabus is divided into three stages corresponding with Parts I., II., and III. of this book. The opening chapter deals with elementary proceedings, such as the determination of physical constants and the detection of the elements and gives a few preliminary notes on preparations. Methane, ethyl alcohol, formic acid, acetic acid, formaldehyde, ether, ethyl compounds, and acetone follow, to be succeeded by chapters on the acids, urea, cyanides, starches, sugars, and so forth, this part concluding with a scheme for the identification of any compound contained in the first stage of the syllabus. More advanced work follows in Parts II. and III. The paragraphs on preparations are excellent and eminently practical, and the tests described bear the evidence of a laboratory acquaintance with their value. The scheme is worked out thoroughly and clearly from beginning to end and should make what is to many often a difficult course easy and intelligible.

Annales Médicales et Bulletin de Statistique de l'Hôpital d'Enfants Hamidié. VIII^me^ année. Edited by Dr. IBRAHIM PACHA, Director-in-Chief, in collaboration with the medical staff of the hospital. Constantinople: Imprimerie Osmanié. 1907.—This publication has now reached dimensions which any hospital might be proud to claim for its "reports" and is of great interest as showing to what extent the Western ideals of medical practice and research are becoming implanted in Eastern minds. Another pleasing feature of the *Bulletin* is the proof which it affords of the humanitarian interest taken by the Sultan of Turkey in the welfare of the sick and poor of his country. The Hamidié Hospital, which he founded in 1898 in memory of his daughter, the Princess Imperial Hadidjé, already owes much to his generosity, and this *Bulletin* chronicles the completion of a gynæcological wing at the expense of the privy purse and also the erection of a sanatorium for pulmonary tuberculosis in connexion with the hospital in the pine forest above the plain of Kutahia. The *Bulletin* states that the equipment of the hospital is now thoroughly in accord with Western requirements and one of its latest acquisitions is an installation of lighting and gas. Most of the papers are written in Turkish; they include clinical observations, scientific studies, and a little popular instruction in hygiene. Some few of them are communicated in French and German, amongst which are A Case of Strangulated Diaphragmatic Hernia, by S. E. Dr. Alexandre Pacha Kambouroglon; the Surgical Treatment of Hydatid Cysts of the Liver, by Dr. Léon de Lacombe; Erythema Infectiosum, by Professor Theodor Escherich; a Study of Recklinghausen's Disease, by Dr. Chukri Mehmed; and Vesical Calculus, by Dr. Raïf bey. The reports are well illustrated with reproductions of many photographs. A long list of honours which have been awarded to members of the hospital staff is printed in the annals.

Paraffin in Surgery: A Critical and Clinical Study. By WILLIAM H. LUCKETT, B.S., M.D., Attending Surgeon, Harlem Hospital; Surgeon, Mount Sinai Hospital Dispensary; and FRANK I. HORN, M.D., Assistant Surgeon, Mount Sinai Hospital Dispensary, New York City. With 38 illustrations. New York: Surgery Publishing Company. 1907. Pp. 118. Price $2.—The time had certainly arrived for the appearance of a work dealing thoroughly with the rôle of paraffin in surgery. Seven years have elapsed since Gersuny's original article appeared in the *Zeitschrift für Heilkunde* and much progress has been made. It must not be forgotten that the method was first introduced for the treatment of prolapse of the rectum, and the application of the method to the cosmetic relief of saddleback noses was a later development. In this little book the authors give a good account of the use of paraffin and they show what happens to the paraffin after it is injected. They prove fairly clearly that

[1] Dr. William Sykes, in an article, "On the Origin and History of some Disease Names," which appeared in our issue of April 11th, 1896, p. 1007, says: "The 'Black Death' which ravaged Europe during the years 1348–50 with such terrible results is not to be found in any contemporary literature under that name, which has been shown by Dr. Murray in the New English Dictionary to have had no more recondite a source than Mrs. Markham's 'History of England,' published no earlier than the beginning of the present century for the instruction of children."

nearly all of the complications and accidents which have occurred as a result of the injection of paraffin have followed the employment of a paraffin melting below 110° F., and we agree with the authors that the employment of a paraffin of a melting point higher than this is desirable. We cannot agree with Eckstein that 136° F. is a desirable melting point, for the risk of burning is great and the practical difficulties during use are by no means small. It must be recognised that the use of paraffin in surgery is reasonable and gives good results in careful hands, but its employment is not without a small element of danger and even fatal results have occurred. A skilful surgeon, however, can sometimes by the use of paraffin produce results unattainable otherwise and the risk is small. When a paraffin of suitable melting point is chosen the results are apparently permanent.

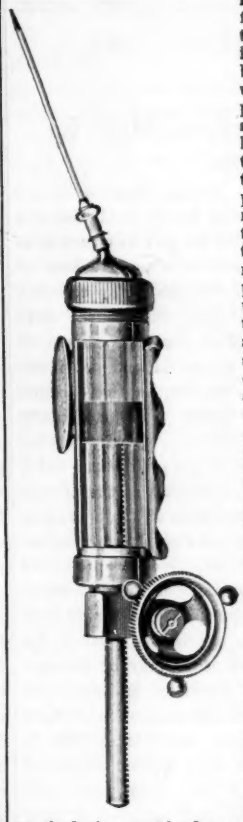
A Manual of Orthopædic Surgery. By AUGUSTUS THORNDIKE, M.D., Assistant in Orthopædics at the Harvard Medical School; Visiting Surgeon to the House of the Good Samaritan; Assistant Orthopædic Surgeon to the Children's Hospital, &c. With 191 illustrations. London: Rebman, Limited. 1907. Pp. 401. Price 10*s.* 6*d.* net.—There is room for a small book on orthopædic surgery. The subjects included under this title are indeed mentioned and described in the general text-books of surgery but the senior student finds that he requires more, and such a book as this is very well suited to supply this want. The descriptions of treatment are sufficiently lengthy to be of practical use and treatment is after all the part that is most needed. The author is moderate in his views and there is hardly any statement to which exception need be taken. The book is adequately illustrated. We do not know a better work on orthopædics for its size.

New Inventions.

NOTE ON A NEW SYRINGE FOR THE INJECTION OF IODIPIN, WITH A DESCRIPTION OF THE METHOD OF USING.

IODIPIN, an additive compound of iodine and sesame oil, is a thick yellow oil and is prepared in two strengths—namely, 10 per cent. and 25 per cent. The latter is that most commonly employed for subcutaneous or, preferably, intramuscular injection. Hitherto the intramuscular injection of iodipin has been always attended with a certain amount of difficulty—firstly, owing to the oily and viscid properties of the preparation, which, even when the syringe has been carefully warmed over a Bunsen flame, necessitates considerable force being employed in giving the injection; secondly, the comparatively long time required for the procedure (especially when large doses of iodipin are to be given, i.e., up to 30 cubic centimetres); and last, and by no means least, there is the danger of piercing a vein. The force required to push down the piston makes it almost impossible to hold the instrument absolutely still. The lateral quivering movement thereby produced is apt to cause unnecessary pain, and the up-and-down movement in the long axis of the needle may lead to penetration of a vein, thus leading to the introduction of iodipin into the venous circulation, and so producing a pulmonary embolism and its attendant dangerous consequences. There is also an unpleasant side to the operation—the prolonged period required to give the injection and the disagreeable and often painful sensation caused by such a large quantity of fluid penetrating the tissues of the buttock may give rise to the phenomena of vertigo or syncope. The psychological element has also to be taken into consideration and patients often become nervous and frightened and so are prevented from keeping absolutely still.

Now that iodipin for intramuscular injection is being more widely employed it may be of advantage to introduce a syringe by the use of which these disadvantages can be overcome. This syringe was invented by Dr. Anton Lieven of Aix-la-Chapelle, and after considerable experience in its use I have come to the conclusion that it is quite the best. The salient points of the syringe are: 1. The piston is moved up and down by a rack-and-pinion movement, actuated by a small wheel, with a milled edge, at the side. By this means a quick emptying of the syringe is made possible and considerable force is attained which can be regulated at will. The simple turning of the wheel does not produce any kind of movement or "kick" of the needle, so that all danger of unintentional movement of the needle point is eliminated. 2. The nozzle, on to which the needle fits, is bent at an obtuse angle, so that the holding of the syringe is facilitated if the injection is being given to the patient in an upright position. 3. In order to prevent any rotation of the syringe and also to give a good hold to the fingers when giving the "stab" which is to introduce the needle there are "rests" provided on each side of the metal casing, on the one side for the thumb and on the other for the three fingers. The injection may be given either with the patient lying on a couch or in the upright position. The skin of the buttock is cleaned with ether and then rubbed over with a swab moistened with a solution of biniodide of mercury. The actual situation for the introduction of the needle is preferably in the outer and upper quadrant of the buttock, there being said to be fewer vessels in this locality. The needle, having been previously sterilised by boiling in a solution of common soda, is attached to the nozzle of the syringe and is then introduced into the buttock by a sharp stab. The syringe is then removed, the needle being left *in situ*, and a short space of time is allowed to elapse in order that it may be seen if a blood-vessel has been entered, which mishap would at once become apparent by the exudation of a few drops of blood from the end of the needle. Should this occur the needle must be withdrawn and introduced afresh, and so on, until a spot is reached where no blood passes back through the needle. In the majority of cases there is no need to introduce the needle a second time. The syringe, having been warmed over a flame, is now fitted on to the needle and emptied by rotating the wheel. The rate at which the syringe should be emptied should be gauged by the amount of pain and discomfort caused to the patient. The syringe and needle are then withdrawn, the site of the injection is massaged for a few seconds with the finger tips, and a dressing of gauze and collodion is applied.



The maker of the syringe is Mr. A. Bildheuser, Kleinkölnstrasse, Aachen.

DOUGLAS H. FRESHWATER, M.B., B.C. Cantab.,
M.R.C.S. Eng., L.R.C.P. Lond.,
Assistant in the Skin Department, St. George's Hospital.
Harley-street, W.

INVALID CHILDREN'S AID ASSOCIATION.—The annual meeting of the Invalid Children's Aid Association will be held, by kind permission of the Duke of Westminster, at Grosvenor House, Upper Grosvenor-street, W., on Wednesday, May 13th, at 3 o'clock. Sir Edgar Speyer will preside and the Reverend Father Waggett, Dr. Andrew Lang, Mr. D'Arcy Power, F.R.C.S. Eng., Mr. E. A. H. Jay, L.C.C., and Mrs. Bourchier (Violet Vanbrugh) will be among the speakers. Admission will be by tickets only, application for which may be made to the secretary, 69, Denison House, Vauxhall Bridge-road, Westminster, S.W.

THE LANCET.

LONDON: SATURDAY, MAY 2, 1908.

Dirty and Tuberculous Milk for London.

ALTHOUGH we are gradually making progress in the control of that great article of diet which we all consume in health and in disease, and which we give with such faith in its good qualities to the infants who are still born to us, we much doubt if the general public has any appreciation of the conditions in which a good deal of the milk that it consumes is drawn. Most medical officers of health are familiar with these conditions and are found lamenting them in their annual reports, but we question whether all medical officers of health, more particularly the part-time officers, have the knowledge of dairy farming to enable them to advise as to the proper precautions which should be taken. It is not improbable that at the present time the greatest stimulus to a better state of affairs is being exercised by the larger milk companies which, knowing the risks that they now incur by the supply of a specifically infected milk, are taking care by means of their contracts with the milk farmer and by the agency of inspectors in their own employ to protect themselves against the cruder forms of pollution. Evidence of this influence may be detected in rural districts around London, where for the most part the district councils have the meanest conception of their duties and where any official reform which takes place is due entirely to the efforts of the local medical officers of health and sanitary inspectors. For some years past Dr. WILLIAM COLLINGRIDGE has had samples of milk collected on arrival at Liverpool-street Station from the counties of Essex, Suffolk, and Norfolk—from, that is to say, the district which is more particularly known as East Anglia. These samples have been examined by Dr. E. KLEIN with reference both to their cleanliness and to their tubercle-conveying power, this latter attribute being ascertained by injection of the milk into guinea-pigs. The total number of the samples examined during 1907, 24, is small and therefore the percentages have but a limited value. With this reservation there is but small comfort to be derived from the fact that 54·2 per cent. were fairly clean, 8·3 per cent. tuberculous, and 37·5 per cent. dirty and unsatisfactory. It has, too, to be added that these results seem to agree generally with those obtained during the previous three years, and more particularly is this true of the tuberculous milk, the percentages for which varied from 7·7 to 9·1. Dr. COLLINGRIDGE furnishes illustrative notes relative to the condition of certain of the cowsheds and he thinks that these notes indicate that at the sources little care is exercised to safeguard the milk-supply, the farmer in the majority of instances taking practically no precautions until he is compelled to do so by some such investigation as is here referred to. Dr. COLLINGRIDGE considers, however, that there is no real difficulty in getting proper precautions carried out by the local authorities and he sees no necessity for any central authority (presumably the London County Council in this instance) to waste time and money in inspecting farms in the country. We are afraid that he is perhaps a little too optimistic with reference to rural district councils the *personnel* of which is largely made up of farmers. In our view these district councils have done but little except under very great pressure and, as we have said, the improvements made have been largely effected by the milk buyers from London. Our experience of rural district councils in the matter of milk leads us to the conclusion that probably the best solution of the problem is to hand over the control of cowhouses, and so on, to the county councils.

But we are entirely at one with Dr. COLLINGRIDGE as to the need of further control not only in the condition of the cowsheds but also in that of the cows themselves, in the cleanliness of the milk vessels, and in the matters of transit, of cooling, and of mixing. In our opinion the general cleanliness of cowsheds has materially improved during the last ten years but there is need particularly for more light and ventilation. The average cowkeeper has a distinct bias against light, either because he thinks that it is detrimental to the secretion of milk or less probably because it shows up filth both in the cowhouse and on the udders of the cows. This question of the cleanliness of the cows does not, as a rule, receive sufficient attention, nor does that of the cleanliness of the milkers themselves. The white overalls so often spoken of are not so frequently seen and it is sometimes difficult to discover the "lavatory" in which the milkers are supposed to wash their hands before milking. Despatch of milk in unlocked or unsealed churns is another weak spot in our precautions with regard to milk-supply, and the belief, or excuse, of the farmer that the railway companies refuse locked churns has no basis in fact, although the companies reserve to themselves the right to open locked cans in cases where they suspect that the quantity of the milk is in excess of the declared amounts. Even this may be obviated by marking on the churns their weight when empty. All churns should be locked or sealed and an increasing number of such receptacles seen at railway stations are either fastened with padlocks or sealed with leaden seals. Better provision should be made for securing the scalding by steam of empty milk churns and all mixing of milk at railway stations should be prohibited. This mixing not only involves exposure of the milk but also the use of a "rouser" or mixer, which instrument may at times be found resting upon a dirty platform. Moreover, this mixing enormously accentuates the difficulty of tracing any infection which may have been introduced into the milk, a historical instance of this difficulty being the famous outbreak of scarlet fever in 1885, which was found to be associated with a particular milk-supply derived from a farm at Hendon and which led to Mr. W. H. POWER'S memorable report. The cowkeeper and the dairyman should make their peace with Mr. BURNS at once, for soon he will be within their gates and once there he will be difficult to eject.

Trypanosomes and Trypanosomiases.

DR. NABARRO has done the medical profession in the United Kingdom a great service by the labour and industry which he has bestowed upon the translation of LAVERAN and MESNIL'S classical work on "Trypanosomes and Trypanosomiases."[1] He has produced an excellent translation and one free from the usual faults of language and style met with in so many translations. The drawback to the production of a translation of any work upon a subject of advancing knowledge is that before the book can be produced in its new and alien form fresh discoveries have rendered the original work well-nigh obsolete. Dr. NABARRO has overcome this difficulty and drawback by inserting in the text what has been done in elucidation of the subject of trypanosomes and trypanosomiases during the interval of time intervening between the issue of the original French edition and the appearance of the book in English. So skilfully have the interpolations been made that their inclusion in the text in no way interferes with the continuity of the narrative. Than Dr. NABARRO no one in this country is better qualified to deal with the subject matter of this important publication. A skilled bacteriologist, he has had the opportunity of studying trypanosomes and the ailments which they cause at close quarters in Uganda, where in 1903 he served as one of the members of the Royal Society Commission sent out from this country to study sleeping sickness.

The large volume before us constitutes an additional evidence of the marvellous advance in our knowledge of the etiology of disease consequent upon research in the field of tropical pathology. It is but seven years, on May 10th, 1901, to be precise, since FORDE found a parasite in the blood of a European on the Gambia which DUTTON subsequently recognised in December of the same year to be a trypanosome and appropriately named it the Trypanosoma Gambiense. FORDE and DUTTON'S observations were published in the *Journal of Tropical Medicine* of Sept. 1st, 1902, and since that time the literature not only of human trypanosomiasis but of trypanosomes in animals has multiplied with amazing rapidity. Our knowledge of trypanosomes and the diseases which they cause in animals has occupied attention for some 28 years. Although trypanosomes had been seen before 1880 in the blood of the trout (VALENTINE, 1841) and in the frog (GLUGE, MAYER, and GRUBY, 1842–1843) it was not until 1880 that the parasite was shown to possess a pathogenic significance by EVANS who demonstrated the trypanosome in the blood of horses and camels suffering from surra in India. The next great advance in the subject was made by BRUCE who in 1894 not only found trypanosomes to be the cause of nagana amongst horses and cattle in Zululand but subsequently proved the part played by tsetse flies in the distribution of the parasite. In South America an epizootic of horses termed "mal de caderas" was proved by ELMASSIAN and VOSGES in 1901 to be due to a trypanosome. In Europe dourine or "mal du coit" has been shown to be due to a trypanosome but is peculiar in that it is transmitted by coitus only. These were but the foundations on which the numerous observations now to hand were initiated, and in every laboratory in the civilised world experimental work has been actively carried on for the past decade, with the result that the literature of this subject has grown to an incredible extent. LAVERAN and MESNIL have undertaken the task of sifting, classifying, and reviewing this immense field of study and observation, and NABARRO has not only placed this storehouse of knowledge before English readers but has amplified the original work by important observations made by himself and others. Medical practitioners who are brought into contact with, or who wish to become acquainted with what is known concerning, sleeping sickness will naturally turn to the chapters in this volume dealing with human trypanosomiasis and the relation of trypanosomal infection to sleeping sickness. They will find that in April, 1903, CASTELLANI, working in Uganda, found trypanosomes in the cerebro-spinal fluid of patients suffering from sleeping sickness, an observation which was speedily confirmed by BRUCE and NABARRO. The trypanosome was shown by the last-named observers to be identical with the trypanosoma Gambiense and they also showed that the tsetse fly, glossina palpalis, is the principal transmitter of the disease. That other flies of this species, glossina fusca and glossina longipennis, are also capable of conveying the disease is certain, but so far the glossina palpalis is chiefly incriminated. The extent of NABARRO'S contributions to the volume, amounting in one section alone—namely, human trypanosomiasis—to about one-half of the entire text, greatly enhances the value of the work. Without these additions the translation would have been valueless as a representation of what is known at the present time concerning trypanosomes and the diseases which they occasion. By these additions, however, he original work is improved upon and students of the subject are provided with a complete, accurate, and recent account of the subject.

The treatment of trypanosomiases contained in Chapter XIII., extending to 24 pages, has been wholly written by NABARRO. The account of the part played by the lymphatic glands in the clinical history of sleeping sickness and the minute anatomy of the central nervous system and of other organs of the patients is also for the most part NABARRO'S writing. The lesions of the lymphatic glands in trypanosomal infection have been recently closely investigated. MOTT has shown that the deep paravertebral glands of the neck as well as other glands of the body in cases of sleeping sickness give in almost every instance signs of suppuration. To so marked an extent have lesions of the lymphatic glands been demonstrated that at the present time puncture of the cervical glands is regarded as the most trustworthy means of making the diagnosis of trypanosomiasis, and ZIEMANN and others state that to obtain a knowledge of the prevalence of trypanosomal infection in any given district it is only necessary to examine the cervical glands of the domestic animals indigenous to the district to come to a positive or negative conclusion in regard to the prevalence of the disease. In sleeping sickness areas also TODD and DUTTON found by practising gland palpation and puncture that every negro whose neck glands are enlarged without

[1] Trypanosomes and Trypanosomiases. By A. Laveran and F. Mesnil. Translated and much enlarged by David Nabarro, M.D., B.Sc. Lond. With coloured plate and 81 figures in the text. London: Baillière, Tindall, and Cox. 1907. Pp. 538. Price 21s. net.

obvious cause must be regarded as the subject of trypanosomiasis until the contrary is proved. The gradual onset and development of sleeping sickness are liable to mislead those unskilled in the diagnosis of the disease. The Commissioners in Uganda found, however, that it is possible to divide the course of the ailment into three stages. 1. The stage of fever, during which there are a subtle change of intelligence, febrile symptoms of a hectic type, an accelerated pulse of low tension, and the presence of trypanosomes in the spinal fluid. 2. The stage of tremors. The intelligence becomes more dull, the face puffy, the gait shuffling and uncertain, the speech slow, and the voice high-pitched, and there is a marked tremor of the tongue, the hands, and often of the lips and the legs. During this stage the temperature oscillates. 3. The stage of subnormal temperature and profound lethargy. Inflammatory affections of the respiratory tract are common and secondary bacterial complications are found post mortem, such as purulent meningitis and widespread suppuration of the lymphatic glands; these apparently determine the fatal issue in many cases of sleeping sickness. The duration of the illness is seldom longer than 18 months. The first drug to which value could be assigned in the treatment of sleeping sickness was arsenic and a still further advance was made by the exhibition of trypan-red and afterwards of atoxyl. Treatment by serum, extracts of spleen, injections of cultures of organisms, and the exposure to x rays and other rays have met with little or no success. Curiously enough, benefit, or even the disappearance of the trypanosomes from the blood, occurs by the exhibition of most of the drugs employed. Antimony has been quite recently advocated as a remedy and but for the difficulty of administration it would appear that this drug possesses the power of at least causing the disappearance of trypanosomes. There seems little hope of obtaining a preparation of antimony that can be safely and effectively administered. If given internally it brings on vomiting; by the skin a pustular eruption; and by the hypodermic or intramuscular methods necrosis of the tissues. There is no doubt, however, that a few cases of sleeping sickness may be said to have been "cured" by atoxyl, inasmuch as the patients to whom it has been given are alive and well three years after the disease first showed itself. The trypanosomes of birds, reptiles, batrachians, and fishes are dealt with in Chapters XIV. to XVII., and a great deal of the information in these chapters is added by Dr. NABARRO. The last chapter is concerned with the tsetse flies and their trypanosomes and a coloured plate at the end of the volume shows clearly most of the varieties of trypanosomes at present known.

"The Special Psychology of Women."

THERE is at least this point of resemblance between the man of science and the traditional *sapeur*, that few things are sacred to either. In our columns to-day will be found a lecture, under the above heading, by Dr. T. CLAYE SHAW, in which that very competent authority, greatly daring, addresses himself to a deliberate comparison between the two sexes of which the human race, in common with others, is composed; and arrives, on the basis of such a comparison, at conclusions bearing upon the rightfulness of woman's claim to the electoral franchise. Our admiration of Dr. SHAW'S courage is not diminished by the circumstance that his inquiries have led him to take what the ladies who are in sympathy with the current agitation will regard as the right side in the controversy, because the very fact of his doing so on stated grounds implies a definite claim to form an independent opinion and indicates that his decision might have been an adverse one if the data on which it is founded had been different. The suffrage-seeking sisterhood are able to regard with compassion, or, it may be, with contempt, any arguments hostile to their claims which are based upon grounds of political expediency or of social or domestic convenience, because all such are essentially unstable in their character and are liable, or even likely, to be modified greatly by the operations of time and circumstance. The ladies placidly assign the excellence of their education and the amount of their wealth as conditions which entitle them to vote, without reflecting that the privileges of the franchise-possessing males are absolutely independent alike of property and of intelligence. The fact that such an argument is a *non sequitur*, with no bearing upon the question at issue, renders it as irrelevant to one side of the dispute as to the other, and prevents it from being turned with effect against those who use it. But if science, resting either upon physiological data or upon that comfortable word "psychology," had ventured to pronounce an adverse decision, had declared that the sentence "No votes for women" was somewhere, to use the language of PROCHASKA, "written upon the nervous pulp," or that the play of feminine emotions was essentially incompatible with the correct filling up of a voting paper, why, then, we should indeed have been sorry for science, and still more sorry for those who were called upon to give publicity to her conclusions. In some poultry-breeding districts, when a chicken-destroying kite has been caught alive it has been customary to clip its wings, to cut its claws, to stick a cork upon the point of its bill, and then to cast it down among the hens! Imagination shudders at the possible fate of an anti-female-franchise philosopher in like manner surrendered to the vengeance of those whom his pronouncements had converted into enemies.

Our readers will observe, however, that the question of a female franchise occupies only a subordinate place in Dr. SHAW'S interesting summary of the essential points of resemblance and of dissimilarity offered to our observation by the two sexes, and that a general view of the whole question leads him to a conclusion which may perhaps be expressed by saying that the resemblances are inherent and absolute, while the differences are artificial or accidental. We are not quite sure of the entire correctness of this view of the case, because it is obvious that maternity is an essentially feminine function; and we regard the most marked and characteristic differences between the sexes as being mainly attributable to its requirements. It may be said of the female animal generally that, when she has young, she does not care whose dinner she takes with which to feed them, and this statement, while it ceases to apply to the lower animals as soon as the young have become able

to shift for themselves, is true or nearly so throughout the whole lives of women and materially modifies both their standards of right and wrong and their attitude towards the rest of mankind. As a sixpence can be so held as to shut out the view of the sun, so a child, even when grown to maturity, is often an effective screen against considerations which would otherwise be of overwhelming importance or intensity. The great lady who urges the appointment of ALGY or REGGIE to some important military command is not so destitute of imagination as to be unable to picture to herself the disasters which may be caused by his inefficiency; nor is she, as a rule, so stupid as to be under any delusion with regard to his fitness for the function which she exerts herself to secure for him; but he is *her* ALGY or *her* REGGIE, and she therefore desires that he should be placed in a distinguished position, while she trusts to luck and the chapter of accidents to preserve him from disastrous eclipse. His father, in a general way, would be likely to take an entirely different view of the position and its requirements. In the absence of children an anomalous deflection of the female mental vision is sometimes produced by sexual affinities or attractions. There have been few more clear-headed women in history than QUEEN ELIZABETH, but her fondness for LEICESTER occasioned her to shut her eyes to his most disastrous blunders, and only just escaped being the cause of defeat to the United Provinces in their struggle against Spain. There have, of course, been historical examples of evil feminine influences habitually exerted upon otherwise sagacious and far-seeing men, but such examples are comparatively few and the influence when it has been exerted has in most of them been comparatively short-lived. Conditions and circumstances which completely dominate the lives of many women are, as a rule, little more than episodes in the life of man.

Dr. SHAW'S observations about what is called "thinking" are eminently worthy of attention and appear to us to deserve a far more prominent place in his discourse than that which has been assigned to them. They strike at the very root of a prevailing popular delusion. He quotes WUNDT as declaring that "people think very little and very seldom," and we entertain no doubt that the common belief to the contrary is mainly due to popular ignorance of the nature of intellectual operations. Assuming them, as they probably are, to be the mere exercise of the special endowments of certain groups of nerve cells, as sensations are the exercise of the special endowments of other groups, it is not difficult to perceive in how large a proportion of cases they are purely reflex phenomena in response to some accustomed stimulus and how soon the habit of responding in some particular way supersedes any original capacity for judging and comparing. At an early period of life the force underlying nervous action may be, and must be, guided, but it soon finds its way into accustomed channels; and the brain of the average "man in the street," when of middle age, is frequently incapable of receiving or of assimilating new ideas. His religion, his politics, his views upon social questions, all tend to become stereotyped, and nothing is more difficult to him than to approach the underlying problems from any new point of view. As time goes on the cell groups which minister to the higher faculties of the mind appear to become atrophied from disuse, and the reconsideration of questions, which has long been difficult, ultimately becomes impossible. We have often thought that the consequent decay of any real power of thinking is an adequate explanation of an immense deal of the early mortality of prosperous middle life. The man of business, the banker or the merchant, learns all about his daily calling by the time when he is 40 and is often content to live in the mere practice, as a matter of habit, of what he has thus acquired. He eats and drinks too much and the higher brain centres waste for want of exercise. He is said to die from gout, or from heart disease, or from kidney disease, but he really dies from stupidity and because there is nothing left to keep him alive. It is highly instructive to compare such examples with those of longevity in men of high intelligence, and we believe it will be found, as a rule, that the latter are furnished chiefly by the callings which require the continued exercise of the intellectual faculties upon comparatively new matter, or upon new combinations of familiar data. Great mathematicians have been proverbially long lived; great judges almost equally so; and it is even probable that something of the same kind might be said for eminent journalists who are constantly called upon to apply their minds to the varying circumstances of the day. We believe that no educational acquirement would be of greater value than that which should give the power of restraining the thoughts from perpetual movement along reflex grooves, and should compel them, day after day, if only for some brief season, to consider the foundations of accepted beliefs and the validity of the arguments which might be urged either in defence or in disproof of them. In existing circumstances, the expanse of "gentle dulness" which offers itself to an impartial observer of mankind is not calculated to inspire him with high hopes for either his country or his race.

Annotations.

"Ne quid nimis."

THE HEALTH AUTHORITIES AND THE UNEMPLOYED IN CHICAGO.

COMBINING charitable assistance with the efforts of the local county and municipal authorities a systematic attempt was made to cope with the exceptional distress prevalent during the winter at Chicago. One of the railway companies lent a large brick building and some other premises were available. All new comers, however, spent their first night at the municipal lodging-house where the details concerning their difficulties were properly registered, their clothes fumigated, and their persons bathed. Then they were sent to other institutions for food and lodging. Care was taken not to humiliate these men and they were called upon to work one day out of three and thus to earn the hospitality which they received. The other two days they were to spend in the endeavour to find remunerative employment. The Department of Health instituted an inquiry in view of giving the men relieved all the food which they needed without incurring any unnecessary expense. Thus, the report of the results issued states that while boiled spring chicken gave in gramme calories of food value only 505 units per pound, boiled beef gave 1620 units and bread 1205 gramme calories per pound. The rations given in different

armies to soldiers in the field were studied, together with the diet of artisans or mechanics while at work. The records of the German Empire are pronounced to have supplied the fairest average. From these investigations it was concluded that a man who was not working required 1800 calories and when in work 3200 calories per day. Therefore the bill of fare was contrived so as to supply, on an average, 3100 calories per day and this was considered enough for men who only worked for six hours every three days. For this they were given bread, butter, coffee, sugar, and molasses for breakfast; bread, coffee, sugar, and a meat stew with vegetables for dinner; bread, coffee, sugar, and a beef or mutton soup thickened with split peas, barley, rice, or beans, turnips, onions, and carrots for supper. Examination of the men as they took their baths showed that 79 per cent. were in normal physical condition, 17 per cent. were overfed, and 4 per cent. only were underfed. The number of unemployed receiving what is described as "emergency lodging-house attendance" during the three months January, February, and March last amounted to 68,328. The Chicago Department of Health states that this experiment has very materially helped to protect the city from contagion, for it has kept the homeless clean, healthy, and free from physical suffering. The inquiries made resulted in forcing out of Chicago some "unworthy, idle, and drifting criminals." On the other hand, some "innately honest but weak men were shielded from being driven into crime." Then it was practically shown that health and strength can be maintained on food that does not cost more than 4*d.* per day. It was also demonstrated that lodging-houses can be kept clean, well ventilated, and not overcrowded, giving a bath and sufficient heat, and yield a good profit for less than 5*d.* per day per bed. Perhaps, however, the greatest advantage of this method of dealing with the unemployed is that it did not tend to degrade them and to push them down further in the social scale but, on the contrary, gave them ample time to seek for work and to regain their independence.

THE ANTIQUITY OF THE COFFIN.

THE shapes of familiar objects of human manufacture do not as a rule excite our curiosity. The box-like form of a coffin, for instance, suggests nothing. Even an undertaker has no views on the *raison d'être* of coffins save that they conduce to decency. Yet on grounds of propriety many nations, such as the ancient Romans and the Hindoos, have preferred cremation to interment, since the latter involves the disfigurement and gradual decay of the dead. Coffins, indeed, are not explainable on grounds of hygiene or seemliness, for which primitive men cared very little. Rather must we see in the modern wooden coffin a copy of the prehistoric stone or chalk receptacle which was a conventional reproduction of one of two things—the mummy cases familiar to students of Egyptology, or the dolmen (or stone house) in which prehistoric non-Aryan races, especially round the Mediterranean from Egypt westwards, were in the habit of burying their dead. Coffins were, as Lord Avebury points out in his "Prehistoric Times," apparently unknown to very ancient man. The dead were buried in a sitting posture or in the attitude of sleep in what were regarded as a kind of ghost houses. The most elaborate and fully differentiated of these houses of the dead are, as Professor Sergi maintains, the pyramids with their mummies and various precautions against the decay of the body. A less elaborate differentiation of the house idea is to be found in the dolmens still remaining all the world over from India to Great Britain. A dolmen, built of five slabs of stone, covered by a tumulus, crowned by a menhir, surrounded by a stone circle as at Stonehenge and Avebury, and led up to by an avenue of standing stones, is, in fact, a rude adumbration of the pyramid. Inside the dolmen the dead sat crouched among cooking utensils, arms, and so forth, put there for their use in the spirit world. Is it too much to suppose that the earliest stone coffins were imitations of the dolmens—in fact, dolmens in miniature? Whether this be so or not, it is very probable that our old-fashioned standing tombstones, and especially our table tombs (which are five-sided), as well as the family vaults of great families with their traditions of embalmment and their leaden shell coffins, which conventionally outline the shapes of the dead within, are so many relics of the remote epoch when a tomb was conceived of as a house in which the dead continued to live their former lives. The leaden shell coffins just mentioned may indeed have originated the modern coffin. The latter has still, for no apparently sufficient reason, to be constructed in accordance with careful measurements and in conventional imitation of the human shape. The leaden shell in the family vault sometimes goes so far as conventionally to preserve the outline of the fingers of the corpse, and this fact would seem to point back to a time when corpses were not coffined. Thus the shell, and afterwards the coffin or elaborated shell, might be regarded as interpolations in the dolmen scheme of burial.

THE DELHI MEDICAL MISSION.

A MEDICAL woman desirous of finding an unlimited field for the practice of her profession among members of her own sex, not anxious for material reward, but capable of infinite self-sacrifice, will find a welcome and full scope for all her energies by offering herself at the present time to the Delhi Medical Mission as a member of its staff. Her medical work, should she be accepted, will be performed among native women of India in the neighbourhood of one of the three towns Delhi, Karnal, and Rewari, where the mission has its hospitals, and it will be work done with a view to lighten the burden of physical suffering among women and girls whose fate it is, if unaided, to suffer in a manner undreamt of in this country and almost unrealisable by those who have no acquaintance with the underside of Indian life. In addition to her medical qualifications and to her physical fitness for the life which she will have to live, it will be required of her, as one of the staff of the mission, that she should be a member of the Church of England, ready to feel and to express sympathy with the spiritual as well as with the physical needs of those around her. As a matter of fact, not one but two or three such medical practitioners are required, and of the amount of medical work to be done there would appear to be no limit except that imposed by the physical capabilities of those who have to do it. It includes the treatment of in-patients to the amount of hundreds during the year and of out-patients extending to thousands at the three hospitals, with a still larger number of cases treated outside. These last, it must be remembered, are to be visited in the slums of cities where (to quote from a report of the Karnal Hospital's work) "from long custom it has become a prerogative of the poor and low caste to claim the clothes and even the bed in which their higher class neighbours die. In addition to being infected they are usually in an incredibly filthy condition." This, however, is but an illustration taken at random of the nature of the work, full particulars of which would naturally be obtained first by a lady desirous of embarking upon it, an undertaking not to be entered into lightly. Any such should make early application for information because the need for her services is urgent and she herself would require a short period of preparation as a matter of necessity before being placed in one of the positions now waiting to be occupied. Of the centres named Karnal is situated 70 miles and Rewari 50 miles from Delhi, and in order to allow for necessary leave of absence and to prevent overstrain there should be a full staff of at least five fully qualified medical practitioners. Until a short time

ago there were three, one for each hospital, but the death of Miss M. E. Hayes, M.B., who fell at her post in January of this year, has left but two and these are feeling the severe strain of overwork and responsibility in an Eastern climate. For full particulars, however, of work, salary, the position occupied by the hospitals in question, and other matters as to which detailed information will, no doubt, be desired, reference must be made to the Secretary, Women's Work, S.P.G. House, Tufton-street, Westminster.

LOCALISATION OF FUNCTION IN THE LEMUR'S BRAIN.

AT a recent meeting of the Royal Society Dr. F. W. Mott and Professor W. D. Halliburton communicated a paper on the localisation of function in the brain of the lemur which was of distinct interest to medical men. The lemur is the lowest of the ape-like animals and its brain has received hitherto very little attention. The ring-tailed lemur of Madagascar (Lemur catta) was chiefly employed but in two experiments the black lemur (Lemur macaco) was used. The results obtained did not show any material differences between the two species. The investigation dealt mainly with the motor centres and the usual methods of stimulation and extirpation were adopted. In an animal so low in the scale extirpation is more decisive for the purpose of localisation, but in these experiments the results of extirpation have confirmed those obtained by means of stimulation. The course of the degeneration tracts resulting from extirpation was followed by histological examination of the brain and spinal cord. The results agreed remarkably with those obtained by a study of the histological structure of the various regions of the cerebral cortex. Professor Halliburton was responsible for the experimental part of the investigation and Dr. Mott for the histological portion. In all the stimulation experiments the animals were anæsthetised with ether and the anæsthesia was maintained until at the end of the experiment the animal was killed by an overdose of chloroform. The convolution pattern of the lemur's brain is simple; the fissure of Sylvius was easily recognisable but it was not found possible to identify the fissure of Rolando. The precise posterior boundary of the excitable cortex was very difficult to determine with accuracy and it varied in different animals. It is noteworthy that the large motor cells become more and more scattered from before backwards. The trunk and more posteriorly the leg areas are uppermost and extend on to the mesial surface as far as the intercalary fissure. Below this and in front are the various head and face areas. The areas controlling the upper limb are posterior to, and somewhat higher than, these. These excitation experiments show that in the lemurs, as in the primates, there exist three areas, related to the lower limb, upper limb, and head region respectively, from above downwards, in inverse order therefore to the spinal arrangement. The hand and finger area is large in the lemur but this is not remarkable in view of its habits. It does not pick up its food with its hands as a monkey does but it uses its hands to support the morsel which it has picked up with its mouth. The hand movements are, however, undoubtedly more highly developed than in quadrupeds and come chiefly into play in climbing. There is a well-formed and opposable thumb which must be very useful in the arboreal life of the animal. No special thumb area, however, could be found in the cortex. Repeated attempts to evoke eye movements from the occipital pole led to entirely negative results. It is quite certain that this area is, as in other animals, the visual area, for histologically it was found to possess a well-marked line of Gennari. The motor areas were characterised histologically by the presence of Betz cells; localisation by histological study was therefore possible and the results corresponded closely with those obtained experimentally. Two types of motor cortex were found in the lemur's brain. The large type of Betz cell was found in the greater part of the motor cortex, particularly where limb and body movements were represented. The smaller type of Betz cell was found in the area governing face, tongue, ear, and eye movements, and in this excitable region there is a layer of granules; it is therefore probably sensori-motor. The extirpation experiments were performed under ether anæsthesia and with strict antiseptic precautions. Healing took place by the first intention in all cases. The paralysis exhibited after the operation was on the opposite side of the body; it was not pronounced in any experiment and soon passed off. This transitory paralysis has been frequently noticed before, especially in animals low in the scale. The animals were finally killed by chloroform about a fortnight after the operation. It was then found that there had occurred degeneration of the tracts which pass to the bulbar or spinal grey matter which controls those movements. Degeneration also occurred in commisural and association tracts in the cerebrum. The expenses of the research were in part defrayed in grants from the Government Grant Committee of the Royal Society and by the Science Committee of the British Medical Association.

THE STANDARDISATION OF DISINFECTANTS.

AT the London School of Tropical Medicine, on April 2nd, Sir Patrick Manson presided at a lecture and demonstration given by Dr. Samuel Rideal upon the Rideal-Walker method of testing and standardising disinfectants. The method is well known to those of our readers who are specially interested in matters of hygiene as it has been before the profession since 1903. We need only say that it consists in preparing different dilutions of the disinfectant to be tested and inoculating them in succession with five drops of a 24-hours' blood-heat culture of a given organism (bacillus typhosus is suggested for standardising purposes) and then taking from each subcultures every two and a half minutes up to 15 minutes. The same process of subculturing is repeated with a 1 per cent. carbolic acid solution. The dilution is noted at which the disinfectant under examination gives the same results for the series as the carbolic control and the lowest dilutions of these two chemical agents which kill the bacteria in equal times stand to each other in the ratio which gives direct numerical expression to their relative germicidal value. For example, if it is found that no growth occurs in subcultures taken from the 1 in 100 carbolic acid solution seven and a half minutes after its inoculation with the organisms, but that five minutes have not sufficed to kill them, and that a dilution of 1 in 1400 of a disinfectant x gives the same result, then the Rideal-Walker value of that coefficient is $\frac{1400}{100} = 14 \cdot 0$. The technique is simple and the use of a standard carbolic solution and a standard broth culture minimises the personal equation. In practice, organic matter is added to the solutions in the form of gelatin and starch granules to simulate the conditions of practical disinfection. The authors claim that this method of the carbolic acid coefficient meets in a practical and universal manner the long-felt need of a standard of efficiency on which to base legislation controlling the manufacture and sale of disinfectants. The demonstration was well attended and at its close Dr. David Sommerville, Professor R. Tanner Hewlett, and Dr. Schryver spoke in support of the method. In connexion with this subject we may note that in the House of Commons on April 14th Mr. J. D. Rees asked Sir Edward Strachey, as representing the Board of Agriculture, "whether the Board had made an order to the effect that

disinfectants, weed killers, and the like preparations were drugs within the meaning of the Sale of Food and Drugs Act, and whether it was proposed that such disinfectants, weed killers, &c., if sold by others than registered pharmacists, should have a label attached declaring their efficiency in terms of certain recognised standard tests." Sir Edward Strachey in a written answer replied: "The answer to the first part of the question is in the negative. The conditions under which the articles to which my honourable friend refers should be sold are under consideration by a joint committee appointed in connexion with the Poisons and Pharmacy Bill." We believe that general opinion in the medical profession is beginning to hold that there should be some standard of efficiency in disinfectants. For instance, the Central Midwives Board in the regulations issued to midwives[1] lays down that the midwife must take with her to a confinement, amongst other things, "an efficient antiseptic for disinfecting the hands, &c." How is the efficiency in such a case to be measured? and how is the midwife to be sure that she buys "an efficient" antiseptic?

CLASS MORTALITY STATISTICS.

IT is now more than 20 years since Dr. Grimshaw, late Registrar-General for Ireland, began to publish class mortality statistics for the city of Dublin, and in the returns issued by his successor, Dr. Robert E. Matheson, they have been maintained with but slight alteration of form. Having regard to the undoubted influence of class proportion on the rate of mortality in a population, this commendable attempt to throw light on the important but difficult problem of class mortality has scarcely received the attention which it deserves. The tables dealing with this subject in the Yearly Summary of the Irish Weekly Returns for 1907 are valuable and interesting, although the lesson which they teach is no longer new. Dr. Grimshaw, for the purposes of his tables, divided the Dublin population into four classes: (1) professional and independent class; (2) the middle class; (3) artisan class and petty shopkeepers; and (4) general service class. It is obvious that this division into classes must be more or less of an arbitrary character, but the value of the resulting statistics is scarcely thereby affected if the classification of the population and of the deaths is as nearly as possible identical. The Dublin population enumerated in 1901, so divided, included 17,436 of the first class, 87,188 of the second, 110,423 of the third, and 160,303 of the fourth class; the fourth, or general service class, including about 6000 inmates of workhouses. The tables for 1907 show that while the rate of mortality last year did not exceed 16·2 and 17·0 per 1000 respectively in the professional and independent and in the middle class, it was no less than 28·4 per 1000 in the combined classes including artisans, petty shopkeepers, and the general service class. The contrast between the rates of mortality from the principal epidemic diseases was still greater; among the professional, independent, and middle classes the death-rate from these diseases in Dublin during last year did not exceed 0·9 per 1000, whereas it was equal to 2·3 per 1000, or nearly three times as high, among artisans, petty shopkeepers, and the general service class. The bulk of the fatal cases of measles, whooping-cough, and diarrhœa and all the eight deaths from typhus fever occurred in the general service class. From these facts it may safely be presumed that the contrast between the rates of infantile mortality in these class subdivisions would be still more striking, but the Irish summary under notice does not afford the means for calculating class birth-rates or of true class infantile mortality. It appears, however, that whereas the rate of child mortality last year under five years of age did not exceed 37 per 1000 among the professional, independent, and middle classes, it was equal to 89 per 1000 among artisans, petty shopkeepers, and the general service class. While these Irish class mortality statistics are still interesting, as an experiment, it is matter for regret that no attempt has been made to correct these crude rates of class mortality for the widely differing age-constitution of the various class populations, the omission of which affects the value of these crude death-rates for purposes of comparison. These statistics, however, although uncorrected show the necessity for bearing in mind the varying class proportions of different populations when comparing their rates of mortality.

[1] THE LANCET, August 22nd, 1903, p. 555.

THE DISTRIBUTION OF RAINFALL IN THE BRITISH ISLES.

ALTHOUGH the fickleness of the weather is proverbial, it has long been known that the average rainfall of a country or a locality is to some extent dependent on its geographical position and surface configuration. This sufficiently accounts for the fact that during January and February several lectures on this subject were delivered before the Royal Geographical Society by Dr. H. R. Mill, D.Sc., with special reference to the British Isles, and abstracts of each of these discourses are published in the April number of *Symons's Meteorological Magazine*. Christopher Wren designed in 1662 the earliest rain gauge which has been described, but systematic records of the distribution of rain over the British Isles only commenced in 1860 when the late Mr. G. J. Symons initiated the British Rainfall Organisation and in 1861 published 507 records for the year. The work of this organisation is still carried on in Mr. Symons's former residence, 62, Camden-square, London, where the records collected at 4500 stations are now dealt with every year. The form of rain gauge recommended is either the Snowdon pattern, five inches in diameter, or the Meteorological Office pattern, eight inches in diameter (the two differ only in size), set with the receiving surface one foot above the ground. The highest annual rainfall is always in the neighbourhood of the highest land while the lowest is always on the level plains. The Highlands of Scotland, the Southern Uplands, the Lake District, the Pennine Chain, Wales, the western part of Cornwall and Devon, and the mountains of Ireland all stand out as wet areas, and even the gentle hills of the Eastern Division of England are wetter than the surrounding plains.

TRAUMATIC KYPHOSIS.

AT a meeting of the Société Médicale des Hôpitaux of Paris on April 3rd M. Georges Guillain and M. Guy Laroche reported a case of kyphosis due to a very unusual cause—traumatism. A man, aged 56 years, came under observation with the following history. At the age of 15 years he was well formed and free from any deformity; while going down stairs he slipped and fell on his back. He was taken up and put to bed where he remained for some weeks. Two months after the accident kyphosis began to develop and increased during a year, after which it remained stationary. After the fall the patient felt pains in the spine and subsequently he felt them in damp weather. The deformity did not prevent him from engaging in several occupations—publican, labourer, and hospital attendant. On examination marked kyphosis was seen in the cervico-dorsal region; the culminating point was about the fifth or sixth dorsal vertebra. There was also scoliosis with the convexity to the right and at the back the thorax projected more on the right than on the left side. In front the chest was bulged out and on the left side was in a plane anterior to the right. Different hypotheses have been advanced to explain traumatic kyphosis. Kümmell suggests that some slight attrition of the bodies of the vertebræ is produced and that their nutrition is altered, which causes a

process of slow rarefaction. Mikulicz and Henle think that there is produced a hæmatoma, intra- or extra-dural, which compresses the roots and ganglia of the spinal nerves, causing trophic changes which terminate in a kind of vertebral osteomalacia. In 1893 Pierre Marie and Léri made a necropsy in a case of traumatic kyphosis. Almost the whole of the lesions were found between the sixth and twelfth dorsal vertebræ; they consisted in projecting ossification of most of the ligaments, particularly of the common anterior ligament. There were also irregular and incomplete ossification of some of the elastic ligaments and a tendency to union of the spinous processes by ossification of the interspinous ligaments. The pathogenesis of traumatic kyphosis may be deduced from these findings. The sudden bending of the spine produced by a fall on the back or by the fall of a heavy body on the dorsal region ruptures certain ligaments, particularly the common anterior ligament. Kyphosis may immediately result from rupture of important ligaments. But it is generally produced more slowly. The torn ligaments, no doubt, carry with them fragments of periosteum and are repaired by ossification which determines a curve of the affected region that becomes more and more pronounced.

A WORK OF SUPEREROGATION.

THE *Daily News* of April 22nd is responsible for a story from Woolsthorpe in Lincolnshire to the effect that Dr. J. A. Macdonald, the district public vaccinator, has been compelled "to carry a coffin to the grave containing the corpse of an old man who had died from small-pox, all the other residents having refused to go near the coffin." It seems probable that this unpleasant episode has been exaggerated in the telling, for one man could scarcely carry an adult corpse in a coffin unaided from house to grave, and if the devoted public vaccinator wheeled it on a barrow it is not accurate to say that he carried it. However, it seems probable that Dr. Macdonald played a part of conspicuous charity amongst a company of poltroons and he was rewarded in a manner well worthy of the great heart of his neighbourhood. The Grantham board of guardians has appointed another medical man as deputy public vaccinator for Woolsthorpe, "as many people desired to be revaccinated, but were afraid to go near Dr. Macdonald owing to their fear of infection." If the facts of the case have been stated accurately Dr. Macdonald has our sincere admiration for having performed an act which many men even with a keen sense of duty would have refused to carry out, and we can only hope that some reforming spirit may arise in the happily named village of Woolsthorpe who will make the members of that panic-stricken community thoroughly well ashamed of themselves and testify the same by recompensing Dr. Macdonald against any loss of income which his act of devotion may have occasioned him.

MILLON'S REAGENT AS A TEST FOR PUS.

Millon's reagent has been employed as a simple means of differentiating between pus of tuberculous origin and that resulting from the activity of pyogenic organisms by Dr. Eduard Müller.[1] The method recommended is to fill a small deep porcelain dish nearly to the brim with the reagent and to allow a drop of the pus to be tested to fall into the middle of the fluid. If the pus is of tuberculous origin it coagulates to form a firm film, whereas if it is of ordinary character it forms a less tenacious disc. The former can be lifted out on a platinum loop with ease, whereas the latter breaks up into fragments when it is touched by the loop. If the membrane formed by the drop of tuberculous pus be pushed down into the fluid by the loop it takes on a shape like a pea or bean. A further distinction becomes apparent after a quarter of an hour when ordinary pus causes a distinct red staining of the Millon's reagent, while with pus of tuberculous origin the fluid remains quite unstained. The drop of pus becomes red in colour in both cases. The explanation offered of the different results obtained is that the puriform matter from from tuberculous lesions is rich in protein substances which are coagulated by Millon's reagent, whereas with ordinary pus the proteolytic ferment of leucocytic origin converts a considerable proportion of the protein into simpler disintegration products which do not coagulate but which become diffused into the fluid and yield the red colour owing to the presence of aromatic radicles in their molecules. Dr. Lothar Dreyer[2] of Breslau has applied this test in a number of cases with a view to determine its value for surgical purposes in diagnosis. He employed it in 41 cases of ordinary pus and in 32 cases of tuberculous nature, controlling his results in every instance by bacteriological examination. The pus in the first group was produced by such organisms as staphylococci, streptococci, pneumococci, and bacillus coli. In all cases where the pus contained only tubercle bacilli the typical appearances described by Müller were obtained. With ordinary pus the friable disc described was obtained instead but Dr. Dreyer did not always observe the red staining of the fluid. In one instance only did the test leave him in doubt, where the pus from a case of osteomyelitis of the pelvis, which was of very viscid, thick character, gave a result more like the consistence of tuberculous pus. He also found subsequently that pus from a case of mixed infection with tubercle bacilli and pyogenic organisms gave a reaction corresponding to the latter. He is of opinion that the reaction is of considerable value from the little time which it requires and the ease with which it can be carried out. It would appear from Dr. Dreyer's results that the appearance of a thick tenacious film as a result of the test is a strong presumption in favour of the tuberculous origin of the pus, whereas the more friable membrane, although showing the presence of pyogenic organisms, does not exclude the presence of tubercle bacilli.

[1] Zentralblatt für Innere Medizin, No. 12.

BOMBAY MEDICAL CONGRESS.

A PRELIMINARY meeting in furtherance of the Medical Congress which it is proposed to hold in Bombay early next year was held at Government House on March 25th under the auspices of the Governor of the Presidency, Sir George Clarke, to whom the credit of initiating the project is due. It was resolved that the following gentlemen, who were all present at the meeting, should form the nucleus of a central committee, which should comprise representatives of all branches of the medical profession in the Bombay Presidency, official and non-official: Colonel R. H. Forman, R.A.M.C., Principal Medical Officer, Bombay; Lieutenant-Colonel C. J. Bamber, I.M.S., Sanitary Commissioner; Lieutenant-Colonel M. Collie, I.M.S., Lieutenant-Colonel C. H. L. Meyer, I.M.S.; Lieutenant-Colonel W. E. Jennings, I.M.S.; Major H. E. Winter, R.A.M.C.; Captain W. G. Liston, I.M.S.; Sir Bhalchandra Krishna; Dr. J. A. Turner, Dr. Coghill, Dr. S. A. Powell, and Dr Choksy. The duties of honorary secretary were undertaken by Lieutenant-Colonel Jennings and it was decided that the members of the Governor's council, the surgeon-general with the Government of Bombay, the principal medical officer, Poona Division, and some other distinguished people should be invited to act as vice-presidents of the Congress under the presidency of Sir George Clarke who had consented to accept the post. It was also decided that the drawing up of a definite programme should be entrusted to the central committee which should be asked to give special prominence to sections dealing with the etiology and prophylaxis of tropical diseases, as well as with

[2] Münchener Medizinische Wochenscrift, April 7th, 1908, p. 728.

general sanitation as applicable to India. It was proposed to invite medical men to contribute original papers but that the central committee should have the power of accepting or rejecting contributions. Members attending the Congress would be at liberty to take part in the discussions, the length of their observations being strictly subservient to a time limit. Exhibitions of microscopical and pathological specimens and also of diagrammatic charts and statistical tables would be arranged for; and if possible upon one evening during the session a lantern exhibition of bacteriological and pathological slides would be held. Sir George Clarke in conclusion expressed his thanks to the meeting and assured them that he would do all he could to promote the success of the undertaking. It was his sincere desire and confident expectation that a large amount of practical good would result from a Medical Congress arranged on the lines that had been indicated.

TYPHOID MENINGITIS WITHOUT OTHER LESIONS.

IN the *University of Pennsylvania Medical Bulletin* for April, Dr. R. S. Lavenson has described a condition which appears to be so far unique—typhoid meningitis without other lesions. A woman, aged 26 years, was admitted into hospital on April 22nd, 1906, with intense frontal headache, fever, vomiting, and photophobia. For some weeks she had assisted in nursing her brother in a severe attack of typhoid fever. Four days before admission she was seized with agonising frontal headache with vomiting, photophobia, and great muscular tenderness. These symptoms persisted until admission, when there had been suppression of urine for 36 hours. On examination the temperature was 103° F., the pulse was 80, and the respirations were 16. The patient was slightly stuporous but not delirious and bore an expression of extreme suffering. The forehead was tender on pressure. There was no rigidity of the neck and the knee-jerks were normal, Kernig's sign was not present, there was no eruption, and the spleen was not enlarged. On the 25th she was slightly delirious and Kernig's sign was present. On the 27th the tâche cérébrale was obtained. On the 30th there was rigidity of the neck. On May 3rd hæmaturia occurred and on the 4th œdema of the lungs developed and the patient died. During the first two days of residence in the hospital the temperature varied between 101° and 103·3°; then until death it remained between 99·3° and 102°, fluctuating without any regularity. The leucocytes were about 20,000. On April 23rd Widal's reaction was negative in dilutions of 1 to 10 and 1 to 50; on the 26th it was positive in the same dilution. On the 27th lumbar puncture was performed and the fluid yielded cultures with all the characteristics of the typhoid bacillus. Cultures were made from the blood but proved negative. Except in the meninges the necropsy was negative; there were no intestinal lesions and the spleen was not enlarged. Over the convexity of the right cerebral hemisphere anterior to the pre-marginal fissure was a collection of thick pus in the pia-arachnoid. The ventricles contained light yellow, slightly turbid fluid. Smears from the pus showed a large number of bacilli with the morphological characters of the typhoid bacillus. The complete localisation of the disease to the meninges was probably responsible for the features unlike those of typhoid fever—the leucocytosis, irregular temperature, and absence of rose spots and splenic enlargement. The absence of the Widal reaction until the eighth day of the disease, the usual time of its occurrence in typhoid fever, is noteworthy. Von Leube says: "The occurrence of first a negative and subsequently a positive Widal reaction is the most reliable response to the test. In such case typhoid fever can be positively diagnosed." Cases of meningitis, with serous or purulent exudation, complicating ordinary typhoid fever have been recorded, but none appear to have been recorded in which intestinal lesions were absent. However, Henry and Rosenberger have reported to the Philadelphia Pathological Society a case of typhoid meningitis without intestinal lesions which has not yet been published.

THE DEPARTMENTAL COMMITTEE ON INEBRIATES.

THE Home Secretary has recently appointed a Departmental Committee with the following terms of reference: "To inquire into the operation of the law relating to inebriates and to their detention in reformatories and retreats, and to report what amendments in the law and its administration are desirable." The committee, of which Sir John Dickson-Poynder, Bart., M.P., is chairman, has been constituted as follows: Mr. W. Ryland Adkins, M.P., Mr. T. A. Bramsdon, M.P., Dr. R. W. Branthwaite, H.M. Inspector of Inebriate Reformatories, Mr. W. C. Bridgeman, M.P., Dr. H. E. Bruce-Porter, Dr. H. B. Donkin, one of H.M. Inspectors of Prisons, Dr. C. A. Mercier, and Mr. J. Rose, a metropolitan police magistrate. The secretary of the Commission is Mr. J. F. Henderson, to whom correspondence may be addressed at the Home Office, London, S.W.

THE DESMOID REACTION FOR INVESTIGATING THE FUNCTIONS OF THE STOMACH.

Professor Sahli, of Berne, in 1905 devised a new method for investigating the functions of the stomach, known as the desmoid reaction (δεσμός, a tendon). It depends upon the fact, first noticed by Professor A. Schmidt, that connective tissue is digested and dissolved by the normal gastric juice but not by the intestinal secretions. The method, as described by M. Dubourdieu and M. Lemaire in the *Bulletin des Sciences Pharmacologiques* for March, consists in inclosing a tablet of methylene blue in a membrane of caoutchouc and tying with a catgut ligature to form a small sac, which is swallowed by the patient immediately after the midday meal. Under the action of the gastric juice the caoutchouc remains intact but the catgut is digested more or less quickly, according as the gastric juice is normal or otherwise, with the result that after an interval methylene blue appears in the urine. By observing whether a positive or negative result is obtained, and in the former case whether the time of the appearance of the methylene blue is normal, premature, or retarded, it is possible to arrive at valuable conclusions as to the functional condition of the stomach. In Germany this method has been tried with varying success, owing probably to non-compliance with certain minor but essential details in the technique. The caoutchouc should be of best quality, supple, and about two millimetres in thickness. The catgut should be raw, unsterilised, and 0·3 millimetre in diameter. The methylene blue, weighing about three-fourths of a grain, should be compressed sufficiently to hold it together without being so hard as to hinder it from being quickly dissolved. By following the minute directions given by M. Dubourdieu and M. Lemaire little sacs may be prepared which perfectly inclose the stain, as shown by immersing them for a time in hot water. The appearance of methylene blue in the urine is easily recognised but that of its chromogen is ascertained by boiling the urine with acetic acid. The method has been tried at the Saint André Hospital, Bordeaux, in parallel with that of Ewald, and the diagnostic results obtained have been subsequently confirmed by surgical intervention and otherwise. It is simple, rapid, and capable of clinical control, whereas Ewald's method is complex, prolonged, and largely dependent on the patient. As a result the latter method is liable to involve serious

errors and to yield an incorrect diagnosis. In normal cases the desmoid reaction occurs in from five and a half to seven and a half hours. When the reaction is retarded or negative it indicates a deficiency of hydrochloric acid or of peptic secretion, or derangements connected with evacuation—e.g., stenosis. When the reaction occurs only after some days pyloric stenosis is indicated. The desmoid test is not absolute but it is capable of rendering great assistance to the physician without causing inconvenience to the patient. It is absolutely innocuous and there are no cases in which it is contra-indicated. In cases of renal or hepatic insufficiency or of derangements of the circulation the rate of elimination of the methylene blue may be affected, thereby introducing possible sources of error, but such cases are not numerous, and when they are met with means can be taken to avoid error.

PANCREATIC DIVERTICULA OF THE SMALL INTESTINE.

A GOOD example of the manner in which the international exchange of literature assists medical progress is found in connexion with those obscure structures which, for want of a better name, may be called pancreatic diverticula of the small intestine. These rather uncommon diverticula are usually found in connexion with the third stage of the duodenum but may arise from the upper part of the jejunum. At their cæcal end occurs a glandular mass which is distinctly pancreatic in structure. Mr. H. S. Clogg[1] recently reported a case where such a diverticulum, springing from the third stage of the duodenum of a lad, aged 12 years, became a band under which a loop of intestine was strangulated. Another case is recorded by Mr. H. Alexis Thomson[2] and a number of instances are to be found in recent medical papers published in Austria and in Germany. It is well known that the pancreas is developed as twin buds or diverticula of the duodenum, but Dr. F. T. Lewis and Dr. F. W. Thing,[3] working with human and pig embryos, state that it is quite common to find besides the normal diverticula two or three others, springing from the third part of the duodenum or upper part of the jejunum. Apparently during the course of development they disappear. The cases described by Mr. Clogg and Mr. Thomson are evidently examples in which the embryonic pancreatic diverticula have not undergone retrogression. It is difficult to account for their common occurrence in mammalian embryos, for in no vertebrate animal do accessory pancreatic glands persist in the situation where aberrant diverticula are found to occur. The pancreatic diverticula must not be confused with the form of diverticulum originally described by Dr. H. D. Rolleston, which springs from the inner side of the second stage of the duodenum, just above the opening of the common bile duct. This latter form is quite common, especially in the subjects of enteroptosis, and these diverticula are certainly acquired and not congenital structures.

TUBERCULOSIS OF THE GALL-BLADDER.

SOME interesting observations on tuberculosis of the gall-bladder are recorded by Dr. M. Simmonds of Hamburg in the *Centralblatt für Allgemeine Pathologie und Pathologische Anatomie* of March 31st. The patient was a boy who died at the age of nine months from acute generalised miliary tuberculosis. The bronchial and mesenteric glands showed caseous lesions, the ileum and large intestine contained a few ulcers, and there were small tuberculous nodules in all the organs. In the liver, in addition to numerous grey miliary tubercles, there were some larger foci. Some of these were firm in consistence and bile-stained centrally, others were softened so as to present only bile-stained débris, while some were simply small bile cysts. The condition was, in fact, a tuberculosis of the small biliary passages. The gall-bladder was of medium size and was filled with bile of normal appearance in which no tubercle bacilli could be detected. Except for six small areas of the size of lentils, with sharply-defined margins, the mucous membrane of the gall-bladder appeared to be healthy. These areas were more deeply tinged with bile than the surrounding tissues. Microscopical examination revealed some central necrosis in these areas and a zone of granulation tissue around them. Although neither tubercles nor giant cells were found the tuberculous nature of these foci was demonstrated by the presence of numerous tubercle bacilli in the granulation tissues and in the boundary zone between it and the necrotic area. Elsewhere the gall-bladder was free from bacilli. Dr. Simmonds concludes from his observations on tuberculosis of the bile ducts in general that this condition is an excretion tuberculosis analogous to the similar processes occurring in the kidney. He explains the affection of the gall-bladder in this case by supposing that this was brought about by bacilli carried to the gall-bladder from the lesions in the bile ducts, just as tuberculous affections of the pelvis of the kidney may be induced by bacilli which are excreted through the urinary tubules. He further states that since investigating this case he has carefully examined the gall-bladder in all cases of tuberculosis of the biliary passages that have come under his notice and found similar conditions. He is therefore of opinion that tuberculous lesions of the gall-bladder are less uncommon than they are generally supposed to be. He was able to find only six instances recorded in German medical literature, and in these the condition was generally a chronic ulcerative cholecystitis, and in four of them it was also accompanied by cholelithiasis.

THE Department of Public Health of Queensland in a bulletin dated March 14th states that a male patient, aged 17 years, died in the Brisbane General Hospital on March 6th and a post-mortem examination showed that death was due to the pneumonic form of plague. Another patient, also a male, aged 18 years, whose death occurred on March 11th, presumably due to plague, was also found on post-mortem examination to have died from the pneumonic form of the disease. Another bulletin dated March 21st states that no further case of plague had occurred at Brisbane during the week ending on that date. A telegram from the Governor of Hong-Kong, received at the Colonial Office on April 27th, states that for the week ending April 25th there were 29 cases of plague reported and 26 deaths from the disease.

THE President of the Hospital of St. Cross, Rugby, Mr. R. H. Wood, J.P., D.L., has commissioned Mr. Harrison Dutton to paint the portrait of Dr. Clement Dukes, the senior physician, for presentation to the hospital.

Mr. Joseph Edward Godfrey, M.B., C.M. Edin., Surgeon-General, and Chairman of the Local Government Board of British Guiana, has been appointed a Member of the Executive Council of that colony.

His Grace the Duke of Northumberland will preside at the annual dinner of the Royal Sanitary Institute on May 12th at the Langham Hotel.

THE CHILDREN'S COUNTRY HOLIDAY FUND.—We are asked to state that the annual meeting of the supporters of the Children's Country Holiday Fund will be held in the Whitehall Rooms, Hôtel Métropole, on Tuesday, May 12th, at 4 P.M. H.R.H. Princess Alexander of Teck has graciously consented to preside, and the speakers will include the Earl of Errol, Lord Edmund Talbot, and Sir Oliver Lodge. The secretary of the fund is Mr. Wilfrid Blakiston and the offices are at 18, Buckingham-street, W.C.

[1] THE LANCET, Feb. 29th, 1908, p. 639.
[2] THE LANCET, March 21st, 1908, p. 860.
[3] American Journal of Anatomy, vol. vii., p. 489, 1908.

MOTORING NOTES.

BY C. T. W. HIRSCH, M.R.C.S. ENG., L.R.C.P. LOND.

THE Motor Union of Great Britain and Ireland has appointed from among its members the following committee of medical motorists to protect the interests of the general body of medical men using motor-cars and to advise the Motor Union on all matters in which the interests of medical men as motorists are particularly concerned:—Mr. C. B. Lockwood (London), Mr. W. Watson Cheyne (London), Mr. J. C. Barker (Watford), Dr. Lovell Drage (Hatfield), Mr. E. L. Rowe (Ipswich), Mr. C. B. Moss-Blundell (Thornton Heath), Mr. S. R. Russell Matthews (Peckham), Mr. J. R. Benson (Bath), Mr. W. J. Gilpin (Bourne), Dr. W. F. R. Burgess (Streatham), Mr. L. A. Bidwell (London), Dr. J. Lewis Lock (Uxbridge), Mr. E. W. Marshall (Mitcham), Mr. W. E. C. Musson (Hammersmith), Mr. J. Hopkins Walters (Reading), Dr. P. P. Whitcombe (London), Dr. C. Buttar (London), Mr. H. Myddelton-Gavey (Eastbourne), Dr. O. R. M. Wood (Woolpit), Dr. B. Holroyd (Pannal), Mr. A. T. Falwasser (Maidstone), Mr. F. T. Travers (Maidstone), Mr. G. Horatio Jones (Deddington), Mr. A. Lindow (Plumstead), Dr. Priestley Leech (Halifax), Dr. D. J. Mason (Maidenhead), and Dr. A. Page Robertson (Glasgow). At a meeting held at the offices of the Union, 1, Albemarle-street, Piccadilly, London, W., Mr. C. B. Lockwood was unanimously elected chairman of the committee and Dr. J. L. Lock vice-chairman. The question of the position of medical men in reference to the proposed taxation of motor-cars was considered and it was resolved that a letter should be sent to the Chancellor of the Exchequer, signed by all members of the committee, embodying the following resolution:—

> That in the opinion of medical motorists any additional taxation upon motor cars would not be equitable and would press with special severity upon medical men who use motor vehicles to enable them to carry out their professional duties.

The new charges of the Metropolitan Water Board for water for washing cars were considered and it was resolved that the proposed charge of 20*s.* per car per annum was excessive and unfair as compared with the rate for water for horse carriages and it was resolved to approach the Board upon the matter.

However good a pneumatic tyre may be there is always the possibility—and the pessimist will say the probability—that a nail or a sharp flint may puncture it, and then delay occurs. Punctures which happen when an urgent case is awaiting one are serious. It is true the Stepney wheel will save the situation to an extent, but doctors will, I know, welcome a tyre that cannot puncture and a tube which, as long as it is covered by a cover, lasts—well, almost for ever. Such is what the "Elastes"-filled tube is claimed to be. And so convinced are the Elastes Company of the efficiency of their invention that they recently submitted a 18 h.p. Siddeley car, fitted with elastes-filled tubes on the wheels, to a 3000 miles trial under the Royal Automobile Club's observation. Knowing my interest in these matters the company kindly offered me a seat on the car while the trial was on. For nearly four years I ran a car on solid tyres; my nerves still remember the bumps, and my banking book reveals from the cheques then drawn for repairs, the costs of solids, not for the tyres, but for differential gears or sleeves that gave out as a result of "solid tyres." So it was in a very sceptical mood that I turned my pneumatic-tyred car out at the early hour of half-past seven one morning and drove to the Royal Automobile Club garage in Down-street, Piccadilly. There I left the air-filled tube car and in company with the Automobile Club observer and the representative of the Elastes Company mounted what I erroneously thought must be a solid-tyred vehicle. We had 150 miles to do, and though some of the roads we travelled over were really bad, especially in London, and some further out were stone-covered and unrolled, still I could not tell that we were not riding on air-filled tubes. In addition, it did not seem to alter our speed. The 18 h.p. Siddeley can do its 40 miles an hour. We had a speed indicator on the car, and if it read correctly (and I believe it did) we at times exceeded 40, and certainly there seemed to be no difference in the running either as regards speed, comfort, or resiliency. The question then occurred to me whether, although one did not feel any discomfort, it caused more jar to wheels or to the machinery, especially the transmission gear. The car in question has a live axle and a metal-to-metal clutch, and had done over 2000 miles of the test when I had my run; all that time it had been in charge of the club officials and had not needed any repairs at all. With solid tyres, though the car is, I know, of good make, still I think with a metal-to-metal clutch and a live axle something would have given work to the repairers; and the fact that no repairs had been needed, and that as far as I could tell the machinery was perfect, shows, I venture to think, that elastes-filled tyres give as great protection to the machinery as pneumatic tyres. The spokes of the wheels seemed to be perfectly tight, although on my solid-tyred car, after some thousand miles, they became a bit loose.

Having thus had actual proof that this "stuffing" was of use, I thought I would find out something about its composition. Well, it looks like the patent substance used for filling pessaries, stuff that is supposed not to harden and to keep the instrument soft. For all I know it may be the same material; it consists of glue, glycerine, and chromate salts; these are mixed in a hot state and then forced into an ordinary inner tube, which has a valve to let the mixture in and another to let the air out; these tubes, or *boyaux* as they are called, are placed in a special cover, which is really a mould, and then subjected to a pressure which varies according to the weight and horse-power of the car the *boyau* is intended for, then the valves are removed, the tube is sealed, and set aside for the contents to solidify, and after a period of about ten days it becomes a solid resilient mass. As a result of experience the makers only fit their speciality on their moveable flange rims, as with ordinary rims there may be irregular bedding of the cover bead in the rim flange and thus damage to the filling. Their rim is very simple, merely an ordinary rim from which one flange has been removed; this is fixed to the wheel, the cover with the *boyau* inside is put on, then the moveable flange is put on, and the two are held together by bolts that pass through the felloe, and so that wet shall not enter, there is a groove on the lower part of the felloe, into which a rubber ring fits, and against this the moveable flange presses. The makers, I understand, undertake to convert customer's wheels to take this rim, plugging the ordinary valve and securing bolt holes. They only insist on having the cover, for which the elastes is needed, as if the *boyau* is not a perfect fit it will wear badly or even be damaged. If the cover is sent to them they will mould the *boyau* to it, and as long as care is taken to remove any nails or other matter which may have penetrated the tube, and the cover really covers the tube, then the elastes-filled tube can be used over and over again. They have fitted no less than five covers over one elastes-filled tube and they are of opinion that the tube is no nearer its end than on the day it was first fitted.

The official observer very kindly allowed me to see a variety of horse-shoe and other nails that had been found in the tyres after some of the daily trips and after the journey which I had a long nail was withdrawn which would have surely punctured a pneumatic tyre but had had no effect on elastes. As a result of my day's outing I have made up my mind that when I need new tyres I will have elastes, and I seriously counsel all of the profession investing in cars to have a run on a car so tyred and to experience for themselves how impossible it is to tell the difference between tyres so filled and pneumatics. It can be used with any covers.

Mr. Duckham, in a recent number of the *Motor Car Journal*, outlined a bonus scheme for chauffeurs which seemingly he has found to answer well. As he remarks, delays mean loss of money and unpunctuality, quite apart from the ordinary annoyance of being hung up, and this is especially so with the profession, so for those who have neither time nor inclination to do their own driving and who have professional chauffeurs his plan is certainly worth trying. His agreement with his man was that in addition to a fixed pay he was to have £30 at the end of 12 months, on the conditions that 2*s.* 6*d.* was deducted for every time the car was stopped on the road by any trouble which could have been avoided had the car received proper attention in the motor house, and in addition every time on the road any sign of omission was observed, which though it did not cause a stop might have done so. His man lost 17 half-crowns in the year, the causes of the stoppages being petrol-jet blocked, omission to fill up petrol tank, forgetting to replace cap on valve of the front off tyre, leakage of gas from acetylene gas generator, no paraffin in side lamp, pliers forgotten, magneto terminal loose, chalk forgotten

when inner tube was replaced, fan belt loose, &c., all trivial faults but faults which caused a stoppage that need not have taken place. But where possible I advocate being one's own driver. It is much more interesting and in addition much cheaper; chauffeurs as a rule are not as thoughtful of wear and tear, especially of tyres, as owner-drivers. With a lad at 10s. a week to do the cleaning it is not only possible but in addition most enjoyable to keep a car in running order, getting a mechanic in, say, once a month to do little jobs, and after a time, if you make a point of watching the mechanic and the way he goes to work, his services may be dispensed with and the job done by the owner himself. A small bench with a vice is soon and cheaply put up, by preference at the back of the motor-shed. And when doing so I suggest a substantial one, with jaws nearly four inches in width. A shelf can be put up for odd tools, such as spanners, pliers, screw-driver, hammers, &c., and with these and a little patience a great deal can be done, and later on if the hobby proves, as I know it will, fascinating, then stocks and dies can be added, and even a lathe, and those that advance as far as this will, I think, even go further and add a small forge. But "go slowly": it is only waste of money to buy many tools until you really feel the need of them. As I have already said, with only a few spanners much can be done.

About the first job a man learns to do is to take out and clean the sparking plugs, and, oh, what energy is exhibited in making the points bright, but it is as well to remember that the presence of soot there is of no account unless it is sufficient to short or bridge between the live and earthed leads, the common seat of offence being shorting between the central electrode and the shell of the plug and thus no spark at the points. A little petrol or paraffin squirted up the plug and a bit of rag on the end of a darning-needle should soon effect a cure. The plug can then be tested by shorting it on to the engine, joining on the high-tension wire and pulling the engine round, and even then though a good spark at the points results it does not follow that it will do so when in the cylinder under compression, as then the added resistance may cause the spark to pass through small defects in the insulation which it would miss when the pass was easy. It is important to remember to couple up the high-tension wire to a plug when pulling the engine round as otherwise the coil may be damaged by burning the insulation. It is, of course, better to have occasionally to take out and to clean the plugs through over-lubrication than not to have to do so and to have the piston rings squeaking for oil, but there is a happy medium and the engine can be properly oiled without sooting the plugs. It is worth while remembering that if the accumulators are run down and others not procurable it is possible to get the engine to go, so as to get home, by approximating the sparking plug points a bit. The usual gap is one-twentieth to one-sixteenth of an inch. Short circuits are a great source of worry and of road-side involuntary halts. An easy method to detect these torts is to run the engine in the dark; a dull blue flicker soon shows where the leakage is and a little piece of rubber will soon cure the complaint. Personally, I think prevention better than cure, so I have encased each insulated wire on my car in gas rubber tubing, and where they are exposed or likely to rub I have again surrounded them with a lead pipe fixed to the frame, and all the accumulator leads I have brought into a two-inch lead pipe, one end of which is brought through the battery box and then burred over, while the other is fixed to the dashboard. Numbering the leads prior to pushing them through the lead pipe obviates any confusion and is an advantage if a lead has to be followed up. Fibre tubes can also be had and are of use in lieu of the lead pipe.

Of plugs there are no end. The "Poignon," "E. I. C.," and "Oleo" are three among many which rarely give trouble. Personally, I prefer those with china insulation; with a good make cracking of the porcelain rarely occurs, but it is always as well to carry a spare plug. New porcelains are more easily fitted at home than on the road. But because an engine does not fire it does not follow that there is either a short or a diseased plug, the cause may be either at the commutator or the coil. In trembler coils the platinum points may stick as a result of pitting or burning. The treatment in this case will be to remove the screw and trembler blade and dress the points with a small file, so that they are quite true with one another, and then adjust the screw so that a good "buzz" is obtained. In the non-trembler type the screw and trembler at the commutator may need similar treatment and then the screw must be fixed so that there is just room for a thin visiting card to be inserted between the two platinum points. In the wipe commutator fitted with trembler coils, as a result of weakness of the wipe spring, there may not be enough pressure to get good contact when the engine is running quickly, or there may be uneven wear of the fibre with perhaps a ridge near the metal contact, causing the wipe to jump and so miss fire, or the bush of the rocking-piece may be worn so that there is play and consequent want of alignment of the blades with the fibre wheel, or dirt may get in between the two and thus prevent good contact. An inspection soon shows if these morbidities exist; if the wipe spring is weak it can be bent or a new one fitted, or if the roller or block is worn they can be filed true. If the fibre ring or wheel is uneven it should be taken off and spun in the lathe, while any ridge can be taken off with a file. If the bush is worn and time does not permit of a new one being fitted a bit of copper wire makes an excellent washer and will keep the wheel true for a time.

THE BELFAST HEALTH COMMISSION.

THE long-expected report of the Belfast Health Commission, issued as a Blue-book of 150 pages, was made public on April 24th. The commissioners, who were appointed at the request of a deputation of Belfast citizens who waited on the then Chief Secretary of Ireland (Mr. Bryce), consisted of Colonel Thomas Walter Harding, D.L., formerly Lord Mayor of Leeds (chairman); Dr. Archibald Kerr Chalmers, medical officer of health of the city of Glasgow; Dr. Ludovic W. Darra Mair, a medical inspector of the English Local Government Board; Mr. Peter Chalmers Cowan, M.Inst.C.E., chief engineering inspector to the Local Government Board, Ireland; and Surgeon-Colonel David Edgar Flinn, F.R.C.S. Irel., one of the medical inspectors of the Local Government Board, Ireland. These commissioners were appointed to make inquiry and to report as to the following matters in regard to Belfast: "(1) The cause or causes of the high death-rate. (2) The administration by the several authorities charged therewith of all general Acts and Orders relating to the public health and the prevention of disease and of all provisions of local Acts conversant with the same or similar matters, and of all other Acts and Orders, whether general or local, which directly or indirectly affect the public health of the city. 3. The measures they recommend for adoption with a view to the improvement of the health of the city." After a preliminary meeting at Manchester on Feb. 20th, 1907, to discuss arrangements and to settle the order of procedure, the commissioners commenced their sittings in the City Hall, Belfast, on March 5th of that year and terminated them on July 24th, lasting in all 32 days, during which 93 witnesses were examined. They also made personal visits to all localities and places that had any bearing on the health of Belfast and we give below their conclusions and recommendations:—

1. We estimate the population of Belfast for 1906 at about 380,000. The official estimate of the Registrar-General for Ireland (366,230) is, in our opinion, too low, and that based on the method employed by the Registrar-General for England and Wales (397,272) is too high. It is desirable that the methods of framing estimates of population for intercensal years by the Registrars-General for the three divisions of the United Kingdom, should be reconsidered with a view to arriving at such reasonable uniformity as may make possible useful comparisons of vital statistics.

2. The corporation of Belfast, like other local authorities in Ireland, are without information as to the details of deaths occurring in their district, beyond the mere numerical particulars obtained from the Registrar-General's official publications. Such information is of essential importance, for without it a sanitary authority cannot adequately search for or cope with causes of disease and death. We cannot urge too strongly the importance of this matter. The most effective and natural way of dealing with it is to follow the precedent of the English and Scottish Registration Acts, even if such a method involves fresh legislation; and we recommend that this should be done. The proposal to obtain from the Registrar-General for Ireland returns of the deaths ascribed to epidemic diseases and phthisis only we consider to be inadequate.

3. Our examination of a variety of data indicates that the death-rate from all causes in Belfast is, and has been for several years, about the same as that of Manchester, rather lower than that of Dublin or Liverpool, but not so low as that of other large cities of the United Kingdom. Although the death-rate of Belfast from all causes is by no means low, we think the allegation that it is, or has been in recent years, excessive, cannot be maintained.

4. On the other hand, mortality in Belfast from certain causes, notably from enteric fever and from phthisis, and to a less extent, from diseases of the nervous system, has been excessive.

5. Although Belfast holds a not unfavourable place among other large cities in regard to infantile mortality, the death-rate among the

other young age groups of the population appears to have been excessive in Belfast. The causes operating to produce this relatively high mortality at these young ages should be thoroughly investigated.

6. The mean annual mortality from enteric fever has been so exceptional in Belfast for the last 25 years that it appears to have no parallel in any other city or large town in the United Kingdom. Insanitary conditions have no doubt played a very important part in fostering enteric fever in Belfast, but cannot of themselves account for so excessive a mortality from this disease or for other features of its history. The water-supply cannot account for fever in Belfast, because there has been no relation between the distribution of the disease and the distribution of any one of the three separate sources of water-supply. On the contrary, the incidence of fever on different parts of the city has been generally similar and simultaneous, irrespective of water-supply or insanitary conditions, and moreover it appears to have almost exclusively affected the working-class areas of the city. Neither can the constant excess of enteric fever in Belfast be attributed to the local and occasional outbreaks which have been traced to infected milk. On the other hand, the known features of the history of Belfast fever are consistent with an explanation attributing them to the influence, direct and indirect, of shell-fish gathered from the grossly contaminated foreshores of Belfast Lough.

7. No system of sewage treatment, within practicable limits of cost, will fully safeguard the lough shell-fish, and we are of opinion that powers should be obtained to prohibit the gathering of these shell-fish for human consumption.

8. Mortality referred to phthisis and other tuberculosis diseases has been, and is, excessive in Belfast in comparison with English and Scottish cities, but it has not been exceptional for an Irish city. Since 1895 there has been some diminution of it in Belfast. The age and sex incidence of phthisis mortality in Belfast and Ireland is very different from what it is in Manchester and in England and Wales. It may to some extent be due to differences in disease nomenclature in the two countries. The whole question of phthisis in Ireland seems to us to require further and exhaustive inquiry.

9. We have refrained from any recommendations in regard to the notification of phthisis and the provision of sanatoria or dispensaries, as the Local Government Board for Ireland have advised local authorities in recent circulars, and we understand that a Bill on these subjects is about to be introduced by the Chief Secretary for Ireland.

The report with its severe strictures and its numerous recommendations thoroughly justifies the action of the citizens and of the medical profession who, in the interests of their city and of public health, demanded the inquiry. We propose to discuss some of the features of the report in a future article.

SANITARY REFORM IN INDIA.

VII.[1]—THE ANNUAL SANITARY REPORTS.

THE annual reports of the authorities responsible for the sanitation of the various provinces of India for the year 1906 deal with an immense amount of material in connexion with Bengal, Eastern Bengal and Assam, the United Provinces, the Punjab, the Central Provinces and Berar, Burma, the North-West Frontier, Bombay, and Simla.

Bengal.

The thirty-ninth annual report of the Sanitary Commission for Bengal for 1906 is issued by Lieutenant-Colonel F. C. Clarkson, I.M.S., the Sanitary Commissioner for that province. It deals comprehensively with the facts relating to the meteorology of the year, the vital statistics, the history of the chief diseases and of vaccination, the sanitary works, and the work of the Sanitary Board. With respect to the meteorological facts, the rainfall was remarkably heavy during the cold season months; that of February established an absolute record, the number of rainy days being three or four times greater than usual; in contradistinction to this the monsoon period generally gave but a scanty rainfall with irregular distribution, and the public health was thereby affected and was worse in 17 districts. The vital statistics showed a falling off in both the number of births and deaths recorded, amounting to 116,268 in the case of the former and 114,439 in that of the latter. The reduced birth-rate was evidently due to the general unhealthiness of the year 1905 and to the prolonged continuance of high prices of food grains everywhere, which, by lowering the vitality of the people, acted as a check on the growth of the population. As regards the deaths, the decrease was due to the comparatively smaller mortality from plague and fever.

Coming next to the history of the chief diseases, we find that there were a much extended prevalence of, and a serious rise in the mortality from, cholera, there having been 192,596 deaths, as compared with 116,490 deaths the average mortality of the five years 1901–05, the respective ratios being 3·81 and 2·33 per 1000. In fact, never since 1900, when the cholera mortality was the highest ever recorded, has there been such a heavy loss of life from this cause. The mortality was highest in the province as a whole during April and May and lowest in February and January. The death-rate from small-pox was more than thrice as large as in the preceding year, the ratios being respectively 0·43 and 0·14 per 1000. With respect to plague there was a very satisfactory reduction, the total deaths being 59,619, against 126,084 in the preceding year, the ratios corresponding being 1·17 and 2·52 per 1000. A larger percentage of females perished than of males. During the year under report 1777 antiplague inoculations were performed, against 1544 during the preceding year. No cases of, or deaths from, plague were reported anywhere amongst the inoculated. The disease was most prevalent during the first four months of the year, there being then considerable coolness and excessive rains, whilst with the onset of the hot weather there was a sudden drop in the mortality. With regard to the means undertaken for its suppression chemical disinfection was carried out in special cases where it was asked for and in several municipal areas where it could be supervised. Disinfection by heat and examination of infected houses became very popular. At Barari a knapsack sprayer was used to spray the inside of infected houses with kerosene oil emulsion and was attended with signal success. Lastly, rat-killing is seen to be gradually becoming popular. In Jaghdispur this was carried on in a systematic way and the town enjoyed complete immunity from the disease, whilst the latter recrudesced and prevailed with much severity in adjoining thanas and nearly all the other towns in the district. Fever prevailed with somewhat less severity than in 1905, there being 1,126,315 and 1,214,487 deaths respectively. Antimalarial measures were carried on in certain districts, such as filling in hollows and depressions, clearing jungles, and spreading kerosene oil on all foul tanks and cesspools, and in one place quinine was distributed free as a prophylactic. Dysentery and diarrhœa caused 1809 more deaths than in 1905. The report concludes with the sections relative to sanitary works and the annual report of the Sanitary Board, Bengal, for 1906, together with the various appendices relating to the above facts.

Eastern Bengal and Assam.

Lieutenant-Colonel E. C. Hare, I.M.S., the Sanitary Commissioner for Eastern Bengal and Assam, furnishes the report for the year 1906 for this province. Here the district reports did not record any severe waves of cold or heat and the rainfall, evenly distributed over the land, was neither markedly excessive nor deficient. The high prices for grain and its scarcity, which had prevailed in 1905, continued also in 1906, but on investigation, although in some districts the scarcity was undoubtedly due to heavy and prolonged floods at the time when the rice crop was growing, elsewhere it seems to have been due rather to excessive exports of grain and to a limitation of the area under rice cultivation, owing to an increase in the demand for jute and the high price realised by its cultivation; but whatever were the causes of the scarcity, there is no evidence that the high price had any marked effect on the general health of the people, the provincial death-rate being approximately the same as it had been during the last five years and that from bowel complaints being only slightly in excess of the decennial rate. The provincial birth-rate was 37·38, as compared with the quinquennial rate of 39·63. The death-rate was 31·67 for the year, practically the same as that of the previous five years—viz., 31·66—and much lower than that for 1905, which was 35·06, this decrease being chiefly due to a lessened mortality from fevers. The chief causes of mortality were found to be fever, cholera, dysentery, diarrhœa, and small-pox. With respect to cholera the provincial death-rate was higher than that of the decennial average, although lower than that of 1905, the ratios being respectively 3·63, 2·45, and 4·77 per 1000. In the account of the causation we note the drinking of contaminated water as the immediate cause of the outbreaks, so much so that the people are at length beginning to realise the necessity of having good water and applications for grants for improving the existing tanks, making new ones, and sinking wells are numerous. Almost all the civil surgeons who have had to do with the epidemic outbreaks report very favourably on the preventive method of treating the water-supplies with permanganate of potassium.

With respect to the returns for fever, the rate was lower by 1·90 per 1000 than that of the last ten years, although it was high in certain individual towns and rural areas, such as the

[1] Nos. I., II., III., IV., V., and VI. were published in THE LANCET of Feb. 22nd (p. 582) and 29th (p. 661), March 14th (p. 806) and 21st (p. 883), and April 11th (p. 1101) and 25th (p. 1228), 1908, respectively.

Dinajpur district. At Jalpaiguri the fever mortality was so high as to cause the Duar Planters' Association to memorialise the local government for the appointment of a commission to inquire into the fevers of the Duars, which were seriously threatening the prosperity of the tea industry. The association also asked for an inquiry into the causation and treatment of blackwater fever, which has also lately become alarmingly prevalent amongst the Europeans. The government is considering this memorial and we trust that the application of the Planters' Association may attain its object speedily, for the death-rate does not abate during "considerations." The sanitary condition under which the coolies and employers live is evidently not perfect, for the coolie lines are insanitary villages run up without any attempt at regularity or order and are crowded with a fever-stricken population, remaining year by year practically without control or medical treatment. The endemic fever index has been reckoned on some gardens as high as 74·83 per cent. Rangpur, again, is another district in which the heavy mortality from fever is notorious. The Deputy Sanitary Commissioner, Captain C. A. Gourlay, I.M.S., was deputed to make a local inquiry and found various sources for the unhealthiness. As the result of his inquiry a scheme has been sanctioned whereby the drainage of the whole area of the *bhil* country will be improved.

Kala-azar showed much less incidence during 1906, there being 623 cases less than in 1905. Not a single case was found on the banks of the Darrang river in the Garo Hills, the home of the disease. Bowel affections showed a death-rate of 0·90, compared with 0·74 per 1000 the decennial ratio. Several outbreaks of plague occurred in the province in 1906. Nearly all the cases of the severe epidemics which have occurred here have been of the pneumonic variety; in fact, only one example of the bubonic class has occurred, namely, at Dibragarh; the latter appeared to have been connected with granaries and infected rats, whereas this was not the case as regards the pneumonic cases.

This interesting report concludes with some observations on the sanitary work of the province and some general remarks. Amongst the latter the paragraphs concerning the sale of quinine are worthy of attention. Depôts are now opened at each headquarter station under the direction of the civil surgeon and the price of the drug is reduced. During 1906 there has been a considerable increase in the number of packets issued to the population—2094, in contradistinction to 1021 in 1905. To popularise the remedy in a greater degree it is being issued as sugar-coated quinine tablets and leaflets in the vernacular are being distributed telling the story of the malarial fevers. Special hospital assistants for the distribution of the remedy are also recommended. The report concludes with a series of appendices of vital statistics.

United Provinces of Agra and Oudh.

The thirty-ninth annual report of the Sanitary Commissioner for the United Provinces of Agra and Oudh for 1906 comes from the pen of Lieutenant-Colonel S. J. Thomson, I.M.S. In the first place, we here note that the birth-rate was below, and the death-rate above, the normal. With respect to the history of the chief diseases, the following facts are recorded. Cholera caused a larger number of deaths than in 1905 and in the quinquennial mean, the death-rates being respectively 3·14, 2·55, and 1·07 per 1000, the largest number occurring in May and the smallest in January. All the districts suffered more or less from the disease in the year under report. Small-pox also showed an increased mortality, there having been 13,202 deaths, as against 3273 in 1905, the death-rates being 0·28 and 0·07 respectively. Plague fortunately was much less prevalent, there being 69,660 deaths in 1906 as compared with 383,802 in 1905, the rates being 1·46 and 8·05 respectively. Fevers showed an increase in the number of deaths, the death-rates for 1906, 1905, and the quinquennium being 27·62, 26·92, and 25·29 respectively. There was a very severe and widespread epidemic from September until the close of the year, no less than 43·7 per cent. of the total cases occurring during this period. The anti-malarial measures consisted in improving the surface drainage and filling up hollows and excavations. Measures to destroy mosquitoes and their larvæ were only undertaken on a limited scale and in a few districts. The quantity of quinine sold at the various agencies showed a very satisfactory increase, the number of packets of powders being 1,205,181, as compared with 643,668 in 1905. Dysentery and diarrhœa gave a less return than in 1905, the death-rates having been for these years 0·55 and 0·56 per 1000 respectively; the quinquennial average is 0·61. Here, again, the largest number of deaths took place in May. Respiratory diseases gave a return of 20,139 cases, against 23,271 in 1905, but the Sanitary Commissioner considers the mortality to have been understated owing to this heading having only been recently included in the return. January gave the greatest mortality. The report deals likewise with the civil sanitary works, from which it is seen that great attention is being paid to the disposal of the sewage. The various analyses of the water-supply were satisfactory. The Sanitary Commissioner in his concluding remarks states that 1906 is shown to have been an unhealthy year. Mortality was higher from malarial fever, cholera, small-pox, and measles, although considerably lower as regards plague. This is probably the last sanitary report that this able officer will write and he well deserves the recorded appreciation of his services by the Lieutenant-Governor of the province—services which have been rendered for the last 11 years.

Punjab.

Lieutenant-Colonel C. J. Bamber, I.M.S., is responsible for the sanitary report of the Punjab for 1906. It is very satisfactory to note that the death-rate for 1906 exhibits a very substantial decrease of 10·61 per 1000 as compared with that of 1905, the respective ratios being 36·94 and 47·55 per 1000. For this diminution the lessened mortality from plague is chiefly responsible. For the first time also since 1901 the birth-rate exceeds the death-rate. With regard to the causes of mortality, that from fevers was rather greater than in 1905, 407,878 deaths being registered from this cause, or more than half the mortality from all causes. Yet the year 1906 was not particularly unhealthy in this respect, for the death-rate from this class of disease was below the average for the previous five years. Cholera was more prevalent than in the year preceding but the death-rate was very small, only 0·21 per 1000. The total deaths numbered 4232. The disease was reported from all the districts, the largest number occurring in that of Lahore. Its seasonal prevalence followed the usual course, being mostly present in July, August, and September. Small-pox accounted for a rate of 0·66 per 1000, which is 0·43 more than in the previous year and 0·18 in excess of the mean rate of the preceding quinquennium. But although the actual number of deaths registered must be considered very excessive compared with that shown by all civilised countries where vaccination is carried out thoroughly, yet not only was the death-rate in the Punjab very much higher in former years when vaccination was less thoroughly carried out, but also it is to be noted that during the last 40 years, since the introduction of the system of death registration in 1867, there has been a successive reduction of the disease in each decennium.

With regard to plague the most marked feature of the year was the diminution in plague mortality, which fell to the lowest figure recorded since 1901, there being 91,712 deaths reported, as compared with 334,897 in 1905. This lessening of the mortality might encourage the idea that a natural decline of the epidemic had begun but there is no evidence to support such an assumption, for at the end of the year plague was as bad as ever. The people of the province, although generally apathetic, are gradually becoming less suspicious of proffered assistance. By far the majority of the cases were bubonic with a certain number of pneumonic and comparatively few septicæmic cases. The case mortality in the British districts was 87 per cent., no general diminution in virulence being apparent. With regard to the present plague policy that is pursued, this is based primarily on the recognition of the fact that the annual seasonal epidemics lasting from autumn to spring depend chiefly on recrudescences in a large number of places and spreading from these over the surrounding country. Hence the primary importance of preventing these recrudescences: this is a matter of much difficulty due to the impossibility of discovering definitely every endemic centre, whilst they must be attacked before infection becomes active, which makes the time available for the operations very short. The work is then so enormous that plague will break out in many places before all, or even a number of, the endemic centres have been treated. The operations in 1906 have, however, been fairly successful in stamping out recrudescence or in causing comparative freedom from the disease. Evacuation was found to be the most effective measure; disinfection is not of so much advantage as it is but rarely that information is

received sufficiently early to allow of its successful application. One of the best and most effective methods not only of mitigating plague incidence but also of diminishing its mortality when an epidemic is in progress was found to be inoculation. With regard to rat destruction, on account of the favourable results obtained it was pursued with vigour. Captain G. I. Davys, I.M.S., at Amritsur reports that out of 18 well-authenticated centres of endemic plague no case of plague occurred in 11 where rat destruction was thoroughly carried out. Amongst the other diseases noted we find that dysentery and diarrhœa accounted for a mortality of 0·87 per 1000, as against 0·63 in the previous year. The report concludes with an account of the sanitary work executed during the year, with some general remarks and with the usual statistics. We are glad to note here the free distribution of quinine by means of the vaccinators and other officials in the country districts.

MEDICINE AND THE LAW.

Jamaica Rum and Demerara Rum.

Messrs. J. H. Graham and Co., spirit merchants, were convicted recently at Newcastle and fined £5 with £20 costs at the instance of the Jamaica Government for selling a pint of spirit labelled "Jamaica rum" which was, in fact, rum from Demerara. The defendants pleaded guilty and excused themselves on the ground that little distinction was drawn in the north of England between Jamaica rum and the Demerara spirit and also that as only the price of the latter was charged the public was not defrauded. No doubt those interested in the trade of Jamaica instituted the prosecution with full cognisance of these facts and with the intention that the distinction between Jamaica rum and cheaper liquor of inferior quality should be brought to the attention of north country purchasers who can still buy Demerara rum under that title should they prefer it.

Exemplary Sentence on a Milk Dealer.

Considerable satisfaction must have been felt by those responsible for the recent conviction of a man named Joseph Winchester at Feltham who was charged with selling as milk machine-skimmed milk to which had been added, according to the analysis of two samples taken, 6 per cent. and 3 per cent. of water. He was charged with his brother George who when the inspector called his attention to the fact that the two cans from which he was asking for samples contained milk of different colour suggested that the cow in the case of one of them had been "fed on buttercups." There were no previous convictions against George Winchester, however, and his explanation that he was only acting for his brother Joseph, who was the owner of the business, contributed to his being punished by a fine of £1 only with costs. When, however, the bench came to deal with the case of Joseph the county inspector, Mr. Walter Tyler, laid before them a list of his previous convictions in various places since 1894 which had been punished by fines of 9*s.*, 6*d.*, £2, £1, £5, £9 3*s.*, £20, £25, and £100; the total, with costs, amounting to nearly £170. Attention may be called to the trivial penalties of 9*s.* and of 6*d.* inflicted on the first two convictions, which certainly did not act as a deterrent from what must have been a profitable form of fraud to a man who has now been sent to prison with hard labour for three months.

Death from Eating Chromate of Potassium.

An inquest was held recently at the City coroner's court upon a girl, aged 15 years, who had died as the result of eating a piece of chromate of potassium under the impression that it was a form of sweatmeat. Dr. F. J. Waldo in commenting on the fact that chromate of potassium is not subject to regulation as a scheduled poison, contrasted the case with which a child might purchase it with the precautions which would surround the sale of a pint of beer to the same young person. There are, no doubt, some chemical substances which would be less likely to do injury to children or ignorant adults if they were always sold retail under labels showing them to be poisonous or even unwholesome. Children especially are not so wary as their seniors of trying experiments with anything that may turn out to be palatable, and photography, electricity, and other scientific mysteries of their parents' childhood supply the common plaything of the child of to-day. Young people, moreover (and even their elders), although they may have some knowledge of the substances which they are handling, may yet be careless in the matter of leaving them about, and may be rendered less so if they are reminded of their qualities.

Mr. Troutbeck on Deaths under Anæsthetics.

At a recent inquest at Westminster it was proved that the deceased, a boy, aged 13 years, had died while undergoing an operation under an anæsthetic in the Hospital for Diseases of the Throat, Golden-square, and the jury, after returning a verdict of "Accidental death," added the expression of their opinion that proper care had been taken by the authorities of the hospital. We have no doubt that this opinion was perfectly correct and those responsible for the administration of the anæsthetic in the case in question were without blame for the death into which the jury were summoned to inquire. We certainly, however, should not have regarded the opinion of such a tribunal as in any way conclusive had it been adverse and we do not concur in observations made to the jury by the coroner, Mr. John Troutbeck, upon the subject. He is reported to have referred to the very important subject of the administration of anæsthetics and of the deaths which take place under them and to have told the jury, no doubt correctly, that it was their function to satisfy themselves as to whether the cases inquired into were treated by persons possessing the requisite amount of skill and whether death occurred in spite of the due exercise of that skill. He then pointed out that the principal evidence on such occasions was that of the persons into whose conduct inquiry was being held (i.e., the medical men respectively administering the anæsthetic and performing the operation) and referred to post-mortem examination conducted by an independent witness, not connected with any hospital or with its medical staff, as the only check that could be had upon the conduct and evidence of the medical witnesses directly connected with the case. He admitted that the evidence of the latter was the more strictly valuable and that consequently the check was not a very effective one. With the opinion thus expressed, if we have summarised it correctly, we do not agree. The post-mortem examination held in such cases as those described will prove, or will corroborate other evidence with regard to, the physical conditions which led to the death of the patient. It cannot prove what was the conduct of the anæsthetist or of the surgeon during the period preceding the death apart from, or in contradiction of, their evidence, unless we assume that evidence to have been deliberately perjured and clumsily invented. They must remain the only witnesses as to what their acts or omissions may have been, and as members of an honourable profession they will give that evidence truly, even though in conceivable cases it may tend to convict them of error. The hardship to which they have to submit is that they must appear as witnesses before a jury of laymen who in the majority of cases are not even well-educated laymen.

A Medical Man's Motor-car in Collision.

An action in the Chepstow county court recently ended in a verdict for the plaintiff, Mr. C. Corben, for £16 in respect of damage done to his motor-car by another owned by Mr. R. G. Harding, and it would appear to be a matter of congratulation for the plaintiff that the injuries were inflicted upon his car only and were not of a more serious and personal character. The evidence showed that he was being driven to a patient's house and that as his car was issuing at a pace of between four and five miles an hour from a narrow side lane into a main road his driver sounded his horn, but that at the same moment the defendant's car, proceeding to the railway station to meet a train, for which purpose it was late, was coming along the middle of the road and was being driven at between eight and 12 miles an hour, in itself not an excessive rate of speed. The proof as to which car ran into the other, so far as it was independent of the evidence of eye witnesses, was established by the marks on the plaintiff's car, and the considerable damage done to that of the defendant was shown to have accrued after the impact when it became unmanageable and ran into walls, first on the one side of the road and then on the other. That this should have occurred at the point of collision shows that it was a place calling for the exercise of great caution and it is therefore not surprising that the dearth of signposts in Monmouthshire was commented upon unfavourably in the course of the case. Their effect in calling attention to "blind" corners round which vehicles may emerge unexpectedly is one which deserves the special attention of all local authorities

as motor traffic increases. It will be observed with satisfaction that the medical man was not held to have been to blame in any way for an accident which, as has been observed, might have been a very serious one for him. Medical practitioners in the exercise of their calling are likely at any time to find themselves urged to travel as rapidly as possible from point to point. Apart from the use of motor-cars, they have sometimes exposed themselves to censure for driving too fast, for using short cuts and bridle paths the dedication of which to public use has not been established, for riding their bicycles on footpaths, for trying to have public tramway cars stopped for their convenience at the nearest possible point to their patients' houses, and for asserting in other ways claims to privileges which they do not possess. All reasonable indulgence will no doubt be extended to any medical man hurrying to a patient's bedside when it is probably a case of "life or death" dependent upon his early arrival, but even this degree of urgency can confer upon him no right to imperil the lives or even the property of his fellow citizens, and the motor-car is so dangerous an engine when driven incautiously that nothing can justify departure from the rules that make for safety in using it. Mr. Corben, however, emerged with credit to himself and to his servant from a trial in which a counter-claim for heavier damages than he obtained for himself was made against him unsuccessfully, on the ground that his driver had been in the wrong.

LYNN THOMAS AND SKYRME FUND.

THE following subscriptions have been received between April 17th and April 24th by Mr. William Sheen, M.S. Lond., F.R.C.S. Eng. (2, St. Andrew's-crescent, Cardiff), honorary secretary to the fund.

Subscriber of Five Guineas.

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	£	s.	d.
Coventry Division B.M.A., per John Orton	3	19	0
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Mr. William Sheen will be obliged if, in order to insure the correct entry of names, subscribers will inclose their visiting cards.

THE NEW GALLERY.

THE twenty-first summer exhibition of the New Gallery was opened to the public on April 25th. The tendency of the exhibition is apparently year by year to devote a greater space to the arts and crafts—in the sense, that is to say, of jewellery, metal work, enamel, embroidery, and like applications of the handicrafts. Let us first consider the sculpture that is exhibited in the Central Hall, in which by far the most prominent piece in every respect is No. 307, "Adrift," by Mr. John Cassidy, a striking achievement in the nude which presents many features of anatomical excellence. The group is of a family adrift upon a raft and is composed of father, mother, and three children, a girl of about 15, a boy a year or two younger, and a male infant whom the mother clasps anxiously; the father stands up, waving a piece of sail to attract attention, and his commanding figure forms the apex of the group in a manner which suggests that upon him depend the fortunes of the family. A point upon which Mr. Cassidy is to be congratulated is that the mother and daughter are not merely two nude female figures of different sizes; that of the mother is the figure of a woman who has borne and nursed children, a point obvious to medical men, whilst the figure of the daughter, although the development of the breasts show her to have attained puberty, yet accurately presents the anatomy of a young girl. Another piece of sculpture which we can commend is No. 303, Mr. Conrad Dressler's bust of Sir William Crookes. No. 320, Messrs. Morris's tapestry, from a design by the late Sir E. Burne-Jones, is a noteworthy piece of work, both as to colour and execution, whilst Nos. 321 and 322, exhibits of jewellery by M. Lalique and M. Lucien Gallfard, are well worth study. Of the pictures the most interesting to medical men is perhaps No. 242, the careful portrait of Mrs. Scharlieb, M.D., M.S., by Mr. Hugh Riviere. Another medical portrait, that of Dr. Alfred Wolff (No. 28), has been simply and effectively painted by Mr. Harold Speed. There are three portraits which stand out pre-eminent above the others, and we mention them in their order of excellence. First comes No. 239, Sir George Reid's dignified and strong presentment of Lord Halsbury. Next we should place No. 262, the Lady Constance Stewart of Mr. W. D. von Glehn, a portrait of incisive originality, and approaching to it, from the point of view of cleverness, is No. 125, a portrait of Miss Lewis by Mr. Sargent, a notable study in blues and greys. Other interesting portraits are Mr. Shannon's Mrs. Buckley (No. 226), Mr. Labery's Mrs. McEwen, Mr. George's Henry's Marchioness of Tullibardine (No. 218), and No. 145, Mr. John Collier's "Joan and Cyrus." With regard to the subject pictures, the two which will attract most attention are No. 223, "The Rajah's Birthday," by Mr. Frank Brangwyn, and No. 256, "Tom-tom Players, Ceylon," by Mr. E. A. Hornell. They both handle broad effects of strong tropical light and shade in a masterly manner, and whatever may be thought of their respective merits there can be no doubt that Mr. Brangwyn's work affords the more daring conception of the two. As a contrast in effect, though equally striking in execution, is No. 120, "The Monastery," by Mr. S. Melton Fisher, a picture which shows the quality of imagination. In the balcony are exhibited numerous examples of handicraft and applied art, among which may be specially mentioned No. 325, silver work, by Miss Florence Steele, and No. 327, the silver and shagreen work of Mr. Paul Cooper. Various cases of jewellery are exhibited which are well worth study; in one instance the artist appears to have derived inspiration from a careful study of the decorative features of the "valentine" of the mid-Victorian era.

WEST LONDON POST-GRADUATE COLLEGE.—The summer session will commence at the West London Hospital, where prospectus and syllabus of the course can be obtained from the Dean, on Monday, May 11th. The following arrangements have been made for the opening week:—Daily, 2 P.M., Medical and Surgical Clinics; X Rays. 2.30 P.M., Operations. Monday and Thursday, 2 P.M., Mr. H. P. Dunn, Diseases of the Eyes. Tuesday and Friday, 10 A.M., Dr. J. A. M. Moullin, Gynæcological Operations; 2.15 P.M., Dr. H. J. Davis, Diseases of the Throat, Nose, and Ear; 2.30 P.M., Dr. P. S. Abraham, Diseases of the Skin. Wednesday and Saturday, 10 A.M., Dr. E. A. Saunders, Diseases of Children; 2 P.M., Dr. K. Scott, Diseases of the Eyes; 2.30 P.M., Dr. G. D. Robinson, Diseases of Women.

Looking Back.

FROM

THE LANCET, *SATURDAY*, May 1st, 1830.

ON THE MEDICAL SERVICE OF THE EAST INDIA COMPANY.

LETTER IV.[1]

To the Editor of THE LANCET.

SIR,—Before proceeding further in the consideration of the ultimate and sole recompense to medical officers of the East India Company's service, that is, their retiring pensions, it may be proper to mention the form of admission, at the India House, of recruits for this establishment, which is well calculated to deceive. It is this; that "assistant surgeons are permitted to proceed to their respective presidencies, Calcutta, Madras, or Bombay, as the case may be, to practise as surgeons, and to be admitted on the establishments as vacancies may occur." This form has been observed for the last ten or twelve years. To practise as surgeons, where?—Upon whom?—For what?—The thing is quite absurd, and ridiculous; and merely "ad captandum"—to deceive, by giving an idea that, independent of the high prospects which the Company's service holds out, money is to be made in India, even on landing, by private practice! It is but fair, however, to mention, that, according to the present writer's information, no one has hitherto been left to absolute starvation in this way. Medical officers, shipped for India, in compliance with requisitions to the Court of Directors from the several presidencies, have hitherto been wanted to fill up vacancies, occasioned by casualties, long before the period of their arrival in India. At the presidencies, medical practice is in the hands of two or three Company's surgeons. It is only at the Presidencies, that medical officers are paid for professional attendance. At out-stations, a "honorarium," or fee, to the medical attendant, is seldom, if ever, dreamt of; so that, on the Madras establishment, at least, not above one surgeon in one hundred, after from twenty to thirty years' service, happens to receive, in fees and presents, a sum equal to the payment of his passage-money back to England, or 2,000 rupees. Medical men are not prohibited from receiving presents, or fees, in India, on account of professional practice; but their patients (excepting at the Presidencies, or towns of Calcutta, Madras, or Bombay) must necessarily be Company's servants; and it is not obligatory on them to pay for medical advice and attendance; whereas, the attendance of medical men, on all occasions, is obligatory, with or without a fee. Medical men never expect, it may be said never accept, a remuneration from the military; and civilians, who alone are able to pay them, very seldom think any return for their assistance necessary. It has been ruled, however, by the supreme government, and by the subordinate governments, that it is the duty of every medical man, to attend at the call of any person within his reach who may want his services, without fee or reward, and at his own expense for personal conveyance. Let it be understood that such unrequited summonses are often frivolous, and at distances of upwards of fifty miles. Disobedience of these calls renders the surgeon liable to trial by court-martial; or to suffer by the more usual mode of punishing medical delinquents—marching them incessantly about the country to the most distant places, until they sink under fatigue, privation of every sort, despondency, and the malignant influence of the climate. From natives, who seldom ask the help of an English surgeon, the compliment seldom exceeds a small present of fruit, or sweetmeats, a fowl, or a lean goat, or sheep, and, on very extraordinary occasions, perhaps, a well-darned shawl, not worth 20 rupees, and which has been an heir-loom in the family for the best part of a century. So much for the practice of a surgeon in India. .....

Let us now see, by a comparative statement, in what proportions the Honourable Company compensate and appreciate the labours of their two classes of servants—*soul*-curers and *body*-curers.

[1] Excerpts only have been transcribed.

Pay on Retirement.

"A chaplain, after eighteen years' service in India, including three years for one furlough," (that is, after fifteen years' actual residence in India), "is allowed to retire on the pay of lieutenant-colonel, 365*l.* per annum."

"A medical officer, after twenty years in India, including three years for one furlough," (that is, after seventeen years' service in India,) "is permitted to retire from the service on the pay of captain, 191*l.* 12*s.* a year." After twenty and thirty years' service in India, the same, 191*l.* 12*s.*

"A chaplain, if compelled to quit the service on account of ill health, after ten years' service in India, is allowed to retire on the half-pay of lieutenant-colonel, 200*l.* 15*s.* a year.

"A medical officer, if compelled to quit the service on account of ill health, after ten years' service in India, is (or rather was) permitted to retire on the half pay of lieutenant, 73*l.*; after six years, on the half pay of ensign, 54*l.* 15*s.*; after thirteen, on the half pay of his rank, that of full surgeon, if fortunate, 127*l.* 15*s.*; or of lieutenant, if the reverse, 73*l.*

"A chaplain, after seven years' residence in India, is allowed to come home on furlough, and receive the pay of major, 292*l.* a year; should he come home from sickness prior to this period, he is to receive the pay of captain only."

"A medical officer, after ten years' service in India, is allowed to come home on furlough, and receive the pay of lieutenant, 95*l.* 16*s.* 3*d.* a year."

X.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN 76 of the largest English towns 8013 births and 4780 deaths were registered during the week ending April 25th. The annual rate of mortality in these towns, which had steadily declined in the four preceding weeks from 17·4 to 15·2 per 1000, was equal to 15·4 in the week under notice. During the first four weeks of the current quarter the death-rate in these towns has averaged only 15·7 per 1000; the rate in London during the same period did not exceed 15·4. The lowest annual death-rates in the 76 towns during the week under notice were 6·7 in Hornsey, 7·3 in Willesden, 8·1 in Southampton, and 9·3 in King's Norton; the rates in the other towns ranged upwards to 20·5 in Devonport, 20·9 in Oldham, 22·9 in Rochdale, and 23·5 in Stockton-on-Tees. The rate of mortality in London during the week did not exceed 15·4. The 4780 deaths in the 76 towns during the week showed an increase of 32 upon the low number returned in the previous week, and included 376 which were referred to the principal epidemic diseases, against numbers declining from 487 to 382 in the four preceding weeks; of these, 138 resulted from whooping-cough, 101 from measles, 49 from diphtheria, 35 from diarrhœa, 32 from scarlet fever, and 21 from "fever" (principally enteric), but not one from small-pox. The deaths from these epidemic diseases were equal to an annual rate of 1·2 per 1000, corresponding with the rate in the previous week; the rate from the same diseases in London was equal to 1·3. No death from any of these epidemic diseases was registered last week in Leicester, York, Aston Manor, Coventry, or in nine other smaller towns; the annual death-rates from these diseases, however, ranged upwards to 2·8 in Huddersfield, 3·0 in Smethwick and in Birkenhead, and 3·5 in Rochdale. The fatal cases of whooping-cough in the 76 towns, which had been 204, 150, and 134 in the three preceding weeks, rose again to 138 in the week under notice; the highest death-rates from this disease in these towns last week were 2·0 in Sunderland and in Newport, 2·3 in Smethwick, and 2·6 in Devonport. The 101 deaths from measles were fewer by 26 than those in the previous week; they caused death-rates, however, equal to 1·1 in Salford and in Swansea, 1·3 in Birkenhead, and 1·8 both in Preston and in Rochdale. The deaths from diphtheria, which had been 53 and 39 in the two previous weeks, rose again to 49 last week, and included 13 in London, four in West and East Ham, two in Wolverhampton and in Walsall, four in Liverpool, five in Manchester and Salford, three in Hull, and two in Middlesbrough. The 32 fatal cases

of scarlet fever showed a further slight decline, but caused death-rates equal to 1·2 in Leyton and to 1·5 in Wallasey. The 35 deaths attributed to diarrhœa exceeded those in the previous week by five, and the 21 deaths referred to "fever" also showed a slight increase; the deaths from "fever" included three in Birmingham and three in Huddersfield. The number of scarlet fever patients under treatment in the Metropolitan Asylums and London Fever Hospitals, which had steadily declined in the 20 preceding weeks from 5581 to 2887, had further fallen to 2361 on April 25th; 332 new cases were, however, admitted to these hospitals during the week under notice, against 297 and 328 in the two preceding weeks. The deaths in London referred to pneumonia and other diseases of the respiratory organs, which had been 274 in each of the two preceding weeks, rose to 301 in the week under notice, and corresponded with the corrected average number in the corresponding week of the five years 1903–07. The 31 deaths directly referred to influenza in London showed a further decline from the numbers in recent weeks. The causes of 62, or 1·3 per cent., of the deaths registered in the 76 towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Bristol, West Ham, Bradford, Newcastle-on-Tyne, and in 47 other smaller towns; 12 uncertified causes of death were, however, registered in Birmingham, nine in Liverpool, eight in Gateshead, and seven in Sheffield during the week under notice.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in eight of the principal Scotch towns, which had been equal to 19·7, 18·8, and 16·4 per 1000 in the three preceding weeks, rose again to 18·8 in the week ending April 25th, and exceeded by 3·4 the mean rate during the same week in the 76 large English towns. Among the eight Scotch towns the death-rate during the week under notice ranged from 11·4 and 12·3 in Aberdeen and Leith, to 20·7 in Perth and 21·4 in Paisley. The 663 deaths in these eight towns showed an increase of 85 upon the number returned in the previous week, and included 77 which were referred to the principal epidemic diseases, corresponding with the number in the previous week; of these, 34 resulted from measles, 14 from diarrhœa, 12 from whooping-cough, seven from "fever," seven from diphtheria, and three from scarlet fever, but not one from small-pox. These 77 deaths were equal to an annual rate of 2·2 per 1000, while the mean rate from the same diseases in the 76 English towns during the week did not exceed 1·2. The 34 fatal cases of measles showed a further decline from the numbers in recent weeks, and included 25 in Glasgow, seven in Edinburgh, and two in Paisley. The 14 deaths attributed to diarrhœa exceeded the number in the previous week by three. The 12 fatal cases of whooping-cough were, however, fewer than in any recent week; four occurred both in Glasgow and in Edinburgh and two in Dundee. The seven deaths referred to "fever" were all returned in Glasgow; of these, five were certified as cerebro-spinal meningitis and two as enteric. Of the seven fatal cases of diphtheria three occurred in Glasgow and two in Dundee; and all the three deaths from scarlet fever were returned in Glasgow. The deaths referred to diseases of the respiratory organs in the eight towns, which had been 128 and 121 in the two preceding weeks, further declined to 113 in the week under notice, but exceeded by one the number returned in the corresponding week of last year. The causes of 24, or 3·6 per cent., of the deaths in these eight towns during the week were not certified or not stated; in the 76 English towns the proportion of uncertified causes of death in the same week did not exceed 1·3 per cent.

HEALTH OF DUBLIN.

The annual rate of mortality in Dublin, which had been equal to 22·5 and 23·1 per 1000 in the two preceding weeks, declined to 21·1 in the week ending April 25th. During the first four weeks of the current quarter the death-rate in Dublin averaged 23·2 per 1000; the mean rate during the same period did not exceed 15·4 in London and 15·6 in Edinburgh. The 160 deaths of Dublin residents registered in the week under notice showed a decline of 15 from the number returned in the previous week, and included seven which were referred to the principal epidemic diseases, corresponding with the number in the previous week. These seven deaths were equal to an annual rate of 0·9 per 1000, the rate during the week from the same diseases being 1·3 in London and 1·9 in Edinburgh. Of these seven deaths from epidemic diseases in Dublin three resulted from measles, two from whooping-cough, and two from diarrhœa, but not one either from scarlet fever, diphtheria, "fever," or small-pox. The fatal cases of measles corresponded with the number in the previous week, while those of whooping-cough were fewer by one. The 160 deaths from all causes in the city during the week included 26 of infants under one year of age and 43 of persons aged upwards of 60 years; the number of deaths of elderly persons showed a considerable decline from the numbers in recent weeks. Two inquest cases and two deaths from violence were registered, and 82, or 51·3 per cent., of the deaths occurred in public institutions. The causes of seven, or 4·4 per cent., of the deaths registered in the city during the week under notice were not certified; all but one of the 1420 deaths in London last week were duly certified, and in Edinburgh the proportion of uncertified deaths did not exceed 1·6 per cent.

THE SERVICES.

ROYAL NAVY MEDICAL SERVICE.

THE following appointments are notified:—Fleet-Surgeons: C. Bradley to the *Cæsar*, on recommissioning; J. L. Smith, M.V.O., to the *President*, additional, for three months' course at West London Hospital; H. B. Beatty to Royal Marine Division, Chatham; and R. Miller to the *Magnificent*. Staff-Surgeons: S. Roach to the *President*, additional, for three months' course at West London Hospital; N. J. Roche to the *Victory*, additional, for Portsmouth Dockyard; W. K. Hopkins to the *Edgar*, temporary; E. G. E. O'Leary to the *Sutlej*, on recommissioning; and E. S. Miller to the *Cornwallis*, on recommissioning. Surgeons: G. E. Hamilton to the *Hannibal*; W. N. Blatchford to the *Sutlej*, on recommissioning; C. K. Bushe to the *Cornwallis*, on recommissioning; P. D. Ramsay to the *Vivid*; and W. T. Haydon to the *Vivid*, additional, and to the *Cæsar*, on recommissioning.

INDIAN MEDICAL SERVICE.

The King has approved of the following retirements:—Lieutenant-Colonel Alfred Ernest Roberts (dated April 21st, 1908). Lieutenant-Colonel William Alexander Lee (dated April 7th, 1908). Lieutenant-Colonel Kavasji Hormasje Mistri (dated March 4th, 1908).

VOLUNTEER CORPS.

Rifle: 3rd (Duke of Connaught's Own) Volunteer Battalion, The Hampshire Regiment: Surgeon-Captain Bonner H. Mumby to be Surgeon-Major (dated March 17th, 1908); Surgeon-Lieutenant-Colonel and Honorary Surgeon-Colonel Charles Knott resigns his commission, with permission to retain his rank and to wear the prescribed uniform (dated March 20th, 1908). 5th (Isle of Wight, Princess Beatrice's) Volunteer Battalion, The Hampshire Regiment: James Albert Gibson to be Surgeon-Lieutenant (dated March 1st, 1908). 2nd Volunteer Battalion, The Essex Regiment: Kenneth Simonds Storrs to be Surgeon-Lieutenant (dated March 6th, 1908).

ROYAL ARMY MEDICAL CORPS (VOLUNTEERS).

Bedford Bearer Company: Supernumerary Captain Edmund F. Bindloss (Brigade Surgeon-Lieutenant-Colonel, Senior Medical Officer, Bedford Volunteer Infantry Brigade) to be Major, remaining supernumerary (dated Feb. 1st, 1908).

ROYAL ARMY MEDICAL CORPS AMBULANCE SECTION.

Permission has been given for the formation of an Ambulance Section of the Royal Army Medical Corps at Camborne and Redruth in connexion with the Plymouth Field Ambulance, R.A.M.C. The head-quarters will be at Camborne.

LITERARY INTELLIGENCE.—Messrs. Cassell and Co. are issuing almost immediately a new and revised edition of "Hygiene and Public Health," by Dr. B. Arthur Whitelegge and Dr. George Newman. The same publishers are also producing a new volume by Dr. G. Ernest Herman, entitled "The Student's Handbook of Gynæcology," based upon the author's "Diseases of Women." It contains 172 illustrations.

Correspondence.

"Audi alteram partem."

THE EPIDEMIOLOGY OF DIPHTHERIA.

To the Editor of THE LANCET.

SIR,—Dr. L. W. Sambon's article on "The Epidemiology of Diphtheria in the Light of a possible Relationship between the Diphtheritic Affections of Man and those of the Lower Animals," which appeared in THE LANCET of April 18th, p. 1143, will not, I hope, be regarded as one of mere academic interest. To neglect to inquire into the truth or otherwise of his statements could only be regarded as a criminal disregard of warnings based upon facts put forward with a convincing accuracy and acumen that nothing but close scientific investigation can substantiate or refute. We are becoming so accustomed to hear of, and to be shown, the close interrelationship between, and the intermutability of, diseases of men and animals that Dr. Sambon's contention comes as no surprise to us. Because there is no direct proof that diphtheria in the pigeon and other animals causes disease in man we are not justified in throwing the subject aside. Inductive and deductive arguments since the more materialistic forms of acquiring knowledge—viz., bacteriology, chemistry, and the microscope—came into more general use are apt to be slighted. We are inclined to judge at the present day by our senses only, whilst our reasoning is granted but little favour. Of course, there are theorists and theorists, but Dr. Sambon's theory, if so practical and convincing an argument as he presents can be styled a mere theory, is no fiction but a grouping of facts and an exposition of conclusions based on these facts arranged in logical sequence which must either be refuted or acted upon. There is no intermediate position and, as his facts are irrefutable, the brunt of the consequence likely to ensue by the neglect of these facts lies with those in authority who fail to act upon the evidence. The transmutability of diphtheria to men from animals has long been suspected and Dr. Sambon has shown how the epidemiology of diphtheria, which has hitherto been so obscure, may be explained. The fowl and the egg are incriminated in the process and it is interesting to note that the eastern counties of England where diphtheria in man is most common are the chief poultry-raising districts of Britain. It is to these counties, moreover, that the migratory pigeons mostly come. An interesting and original suggestion is the part played by eggs in the transmission of disease. I have myself noticed "blemishes" in the white of many eggs, mostly pink patches of delicate membrane, which I was wont to regard as signs of commencing embryonism. Recently, however, Professor Blanchard has shown that these patches contain a nematode worm (*Heterakis papillosa*). The explanation carries but little comfort to us, as we have hitherto regarded fresh eggs as being a food impossible of contamination by infection. Poultry and eggs as articles of diet require therefore to be inspected as carefully as beef, mutton, pork, and fish, and the proper place at which the inspection should be carried out is not in the market-place or shop but in the district in which the fowls are bred and reared. The fowl-house and the eggs must, if we are to act rationally, be legislated for as carefully as in the case of the cow and the milk when dealing with tuberculosis prophylaxis. Our supplies of fowls and eggs are largely derived from the south of Russia and from many districts around the Mediterranean, especially the north African shores. These supplies we cannot control hygienically but we can, and ought to, see that the sources of supply in Britain are wholesome and free from disease. It would be a great advantage commercially were our home poultry industry guaranteed to be sound, and it should be the endeavour of poultry farmers from a monetary point of view alone, leaving the health of the people out of the question, to have their farms placed under official inspection. The answer to this note of alarm is that fowls and eggs are cooked before being eaten and, therefore, there is no need for alarm. Assuming that all eggs are cooked before being consumed, which, of course, is not the case, we have still the fowl to deal with, and from the fowl other animals and man may be directly infected by one of the most terrible of our maladies. An inquiry is imperative if only to allay alarm; but from the immense number of facts recorded not only by Dr. Sambon but by many observers in several countries, it would only be in accordance with the proved relationship of the intermutability of other diseases between men and animals were it positively shown that the *phasianidæ* are the hosts of the diphtheritic poison which they not infrequently communicate to man. I am, Sir, yours faithfully,

London, April 27th, 1908. JAMES CANTLIE.

To the Editor of THE LANCET.

SIR,—I have read Dr. L. W. Sambon's communication in THE LANCET of April 18th, p. 1143, on the Epidemiology of Diphtheria with much interest and taking advantage of the quotation which heads your correspondence column I venture to offer a few remarks. Dr. Sambon says, "In an inquiry of this kind I should like to see the veterinary surgeon of the modern school take his full share of research work rather than adopt, as in the past, a negative hostile attitude which would be ridiculous in the face of the scanty and crude information at present available on the diphtheritic affections of animals." This, after an attempt to show that diphtheria is a disease of the lower animals, sounds as if the veterinary profession had studiously ignored the presence of diphtheria in the lower animals, although to Dr. Sambon the disease is so rampant that it is actually calling out to be diagnosed. In his efforts to show that diphtheria is common in the lower animals he quotes not only from a comedy of Plautus but even also from Numbers and it would appear that he would have the veterinary profession take its bacteriology and pathology from these sources. Because pigs suffered and died from very sore throats, according to Plautus, and the Israelites took quail that disagreed with them we are to believe that diphtheria existed in the lower animals. How easy it is to work up the history of disease when we see references which may have some bearing upon the subject and require only a little stretch of imagination to make them tally exactly with our preconceived notions. The historical references and most of Dr. Sambon's quotations will not bear inspection for a moment.

Before pointing out some of the errors in the article referred to I should like to inform Dr. Sambon that by diphtheria I understand an infection due to the ravages of the Klebs-Löffler bacillus, an organism that not infrequently leads a saprophytic existence and may be observed in the perfectly normal human fauces. The term diphtheria has unfortunately been used for conditions observed in the lower animals which are due to causes other than the Klebs-Löffler bacillus. Indeed, I think I am correct when I say that the cases observed in the lower animals directly traceable to the Klebs-Löffler bacillus may be counted on the fingers of one hand, and in these cases there is grave reason to believe that they were related to direct infection from a human source. Of course, I shall be at once consigned to the old school of veterinarians by Dr. Sambon for such an opinion, but then those of us who spend our days making post-mortem examinations and working with the pathological material obtained from the lower animals can only preach the faith that is in us and take facts as we find them. I quite agree with the opinion expressed by Friedberger and Fröhner (which Dr. Sambon quotes) relating to the transmission of diphtheria from animals to man—i.e., animal diphtheria is "a mere assumption due to ignorance of veterinary pathology." Let us examine the evidence the writer has brought forward in support of his contention that the lower animals do suffer from unrecognised diphtheria. The only evidence that is worth consideration is that given by men who are in a position to give an opinion. What Noah Webster thought in 1800 and what many of the writers of reports to the Local Government Board of later date believe may be dismissed in a word. Their opinions are framed on hearsay evidence or on incomplete clinical records. In many cases the conclusions savour of the *post hoc, ergo propter hoc*.

Dr. Sambon says diphtheria is known to occur in the horse. The only case which needs reference is that of Dr. Louis Cobbett where was found in the nasal discharge the Klebs-Löffler bacillus. This does not prove, however, that the horse was suffering from diphtheria despite the fact that the daughter of the owner had diphtheria and it would have been interesting to learn what condition was found on post mortem if the animal died. I do not think we need be surprised to find the Klebs-Löffler organism in the discharges from the horse's head, nor can we claim that its presence signifies in this case diphtheria because the organism may be found in throats free from any lesion whatsoever. In this case the lesions observed would be more valuable than the discovery of a particular organism. Then in cattle Dr.

Sambon says the disease is known as croup or angina in full-grown animals but in calves is known as diphtheria. Now we are on safe ground and we may take the calves as exhibiting "diphtheria." The term croup or angina signifies to me nothing but a sore-throat, it is a clinical term, certainly not diphtheria as we know it in man. *Diphtheria in calves has nothing whatever to do with diphtheria in man.* The cause of calf diphtheria is well known and inquiry would have informed Dr. Sambon that it is due to the bacillus of necrosis and not to the Klebs-Löffler organism. This was shown by Löffler long ago—by one of the discoverers of the organism said to produce human diphtheria—and yet despite this fact, Dr. Sambon says calves suffer from (human) diphtheria or a diphtheritic condition transmissible to man. The most interesting case of diphtheria in the cow he does not refer to, that described by Dean and Todd in the *Journal of Hygiene.* In this case there was no doubt but that the disease had been inoculated into the cow by the milker and in all cases of diphtheria in the cow with which I am acquainted the animal suffered as a consequence of infection from a human source or from experimental inoculation. The cow was the unhappy victim, but because of her misfortune the disease cannot be assigned to the cow as an infection natural or common to the cow. Dr. Sambon in his paper brings in a lot of extraneous matter, including tuberculosis. I may be permitted also here to refer to that infection. Tuberculosis is extremely rare, if ever it occurs, as a natural infection of rabbits and guinea-pigs. These animals may, however, be readily infected, and so it may happen with the cow in diphtheria. I think I am justified in saying that any cow showing lesions containing the organism of human diphtheria has been infected from a human source. So far as I am aware there is no recorded case of diphtheria in the cow where the human element can be entirely excluded. Dr. Sambon says as to sheep, "The disease is especially prevalent in young lambs; it is in every way similar to that of calves." *This is perfectly true; the cause is the same:* the bacillus of necrosis. I am not prepared to say that swine may not be infected because they are open to infection probably more than any other of the domestic animals that do not cohabit with man. The reason is obvious because of the material often given to swine. I can imagine a pig becoming infected that has been fed on poultices used upon human diphtheritics and other material coming from the sick room, but nevertheless an undoubted case of diphtheria in swine has to be recorded. Lesions occur in this animal also due to the bacillus of necrosis. As to the rabbit, the organism just mentioned is peculiarly fatal for this animal, and judging from the lesions met with in rabbits I am surprised that these animals have not been claimed by Dr. Sambon as subject to diphtheria. I am inclined to some extent to agree that the cat may be the means of disseminating the disease, but I consider in this case that we may look upon the animal as a literal intermediary bearer—a mere transmitting agent of the disease. The animal is infected from a human source and conveys it to other human beings. It may suffer from the disease or it may convey infective material from patient to healthy subject in its fur. The cases in cats can all be traced originally to a human source and although this is the case diphtheria as a disease in cats and dogs is rare. I place no weight whatsoever upon the reference given to the disease in dogs mentioned by Williams as having been seen in the winter of 1878–79. If diphtheria was even rarely met with we should have heard of cases recorded by the many eminent veterinarians who have made the diseases of dogs their earnest and continuous study.

Now as to the disease in birds. Avian diphtheria is not due to the Klebs-Löffler organism. I agree with Ritter that organisms indistinguishable from the organism of necrosis in calves may be abundantly met with and I have experimental proof of fowls being infected directly from calves suffering from so-called calf-diphtheria. In widespread epidemics among pigeons the cause is doubtless other than the organism of necrosis, and Leclainche has shown that in an epidemic he investigated the cause was an organism included in the group of organisms producing septicæmia. Various opinions are held as to the cause of avian diphtheria, which I need not trouble your readers with, not the least interesting organism being a protozoon. Certain it is that those who have worked at this disease in birds are not unanimous as to the organism, but the Klebs-Löffler bacillus is not claimed as the causal agent. I think, therefore, that Dr. Sambon will have to produce more evidence than he has done in support of his opinion that the organism of human diphtheria attacks the lower animals to the degree he maintains. It cannot be placed to the ignorance of members of the veterinary profession that they have hitherto failed to diagnose lesions produced by this organism because clinical evidence has been wanting, and I am certain I am now voicing the whole of the profession. If ever a case had arisen where there was reason to suspect diphtheria they would not have failed to send the material where a correct diagnosis could be made. At any rate, no one has the right to say that such material exists and that the profession has failed to recognise it and that we require the assistance of others to make our diagnosis. We of the veterinary profession pay particular attention to the diseases transmissible from animals to man, and if diphtheria were at all common, or even if it were a comparatively rare event, then there would be no hesitation in making the facts known; indeed, it would be our bounden duty so to do. I am afraid, at the risk of being told to mind my own business, I must say there is too great a tendency to blame the cow (and other animals) for the spread of epidemics and that every avenue for the propagation of the disease is not closed before the cow is called in and summarily convicted. Anyone familiar with our milk-supply, to give a single instance, and the way that very necessary commodity is treated in its course frow cow to consumer need not marvel that it is a vehicle for spreading disease. The *fons et origo* is not in every case the cow, and to do her justice we have no right to modernise *cherchez la femme* into *cherchez la vache.*

I am, Sir, yours faithfully,

A. E. METTAM.

Royal Veterinary College, Dublin, April 20th, 1908.

INFANT INSURANCE.

To the Editor of THE LANCET.

SIR,—It is most sincerely to be hoped that the "Children's Bill," which contains so many useful provisions for preserving and improving child life, will not be allowed to suffer in the "massacre of the innocents" with a view to lighten this session's somewhat crowded programme. There is, moreover, one direction at least in which it seems most desirable that the Bill should be extended, inasmuch as it does not at present deal in any way with the existing system of infant insurance. The constant decline in the birth-rate affords undeniable evidence of decreasing appreciation of the value of children in the family circle. This accentuates the undesirability of permitting the insurance of infants whose parents are unable to prove an insurable interest in their lives. Infant insurance is practically universal among the wage-earning classes, fostered as it is by the large army of agents employed by rival industrial insurance companies; and having regard to the acknowledged waste of infant life owing to ignorance and neglect, it seems impossible to defend a system which provides payment of sums varying up to £6 on the death of a probably sickly infant which at the same time relieves the parents of the trouble and expense of the child's upbringing. The insurance of infants, except by their parents, is not permitted by the rules of most industrial insurance offices, but there is abundant evidence that these rules are not strictly observed. Mr. Robert J. Parr, director of the National Society for the Prevention of Cruelty to Children, when under examination by the committee appointed to consider the advisability of extending the provisions of the Infant Life Protection Act to one-child cases, gave evidence as to the well-known fact that baby-farmers very frequently succeed in insuring the lives of the infants committed to their charge. It is not necessary to suggest that any infants are deliberately "done to death" for the sake of insurance money in order to condemn the system of the insurance of infants as not being conducive to the increased personal care and attention necessary for the reduction of the present excess of infant mortality. The principal industrial insurance offices instruct their agents not to accept a proposal to insure an infant under the age of 14 days, and further that illegitimate children are not to be insured until they have attained the age of three years. Neither of these instructions is, however, strictly observed by insurance agents, since infants are constantly insured as soon as they are born, and insurances are very frequently effected and paid on the deaths of illegitimate children under three years of age. There is, on the whole, abundant ground for urgently desiring that a clause should be added to the "Children's Bill" in Committee restricting or prohibiting the insurance of any infant

under the age of, say, three years without the production of proof of actual and distinct insurable interest.

I am, Sir, yours faithfully,

April 27th, 1908. PRO PATRIA.

CORONERS' INQUESTS UPON DEATHS DURING SURGICAL ANÆSTHESIA.

To the Editor of THE LANCET.

SIR,—In THE LANCET of April 25th, p. 1234, Dr. David Walsh has replied to my criticism of Dr. F. J. Waldo's article upon this subject which was published in THE LANCET of April 11th, p. 1106, and to his remarks I desire to offer the following observations and suggestions. In my letter I gave the exact statistics of the death-rate which the medical profession has found to be incurred by the administration of chloroform, ether, and mixtures of these two anæsthetics. These have been obtained from the records of over 1,000,000 administrations tabulated by Dr. F. W. Hewitt in his classical work on "Anæsthetics and their Administration" (third edition, 1907, p. 148). The medical profession has never expected to obtain any such information as this from the Registrar-General's reports, not only because they are imperfect from many causes, but for the reason that a figure giving only a certain number of fatalities each year without the number of administrations undertaken yields no material for calculating a death-rate from anæsthetics. The number of deaths under anæsthetics which occur in private practice yearly, even if published with the total number of administrations, would, according to Dr. Waldo's own showing, probably largely reduce the calculated death-rate given in my letter, and the reason for this would be that the vast majority of cases of advanced disease and severe injuries are treated by operation in the hospitals and not in private practice.

In the year 1896 the number of operations performed under anæsthetics in the operating theatre at one of the large general hospitals in London was 353; the number in 1905 was 1055. This is a very fair criterion of the enormous increase which has taken place in the number of hospital operations during the last ten years, and if the actual number of fatalities recorded by the Registrar-General for the ten years 1886–1895 was 533 and for the ten years 1895–1905 was 1269 (as given by Dr. A. D. Waller in "Science Progress," No. 8, April, 1908) the death-rate in anæsthesia has decreased in the ten years most markedly, for the proportionate increase in operations under anæsthetics is represented by the figure 3 and of deaths by only 2·38. In view of these facts there is no evidence that an increased *number* of fatalities is any measure of the risks of anæsthesia.

Dr. Waldo states that "the medical man is not compelled by any statutory obligation to report cases of death under anæsthesia to the coroner," and "in a proportion of cases which it is impossible to estimate inquests are not held by coroners upon deaths reported to them as having occurred under anæsthesia." I venture to hold the view that their discretion in this matter shows an excellent fitness for their office because (1) the reports of such inquests furnished to the Registrar-General are useless either for statistical purposes or the advance of scientific knowledge; (2) press reports of such inquests tend to increase the mortality in anæsthesia by causing unjustifiable alarm at the risk of anæsthesia in the minds of patients who are obliged to undergo operation; and (3) the public pillory of a registered medical man involved in giving evidence at such inquests who in administering an anæsthetic to the best of his ability takes every human measure to steer his patient safely through the operation causes an unfair damage to his reputation and practice which ultimately tends to make him refuse to administer an anæsthetic at all in desperate cases requiring operation, where his skilled help is most needed.

Let us see what the law with regard to death certification requires to protect the public from violent or unnatural deaths which would be otherwise undetected. It invokes a declaration on the part of a member of the medical profession as to the cause of death, but he is not necessarily bound to have witnessed the death. In the case of death occurring during surgical anæsthesia not only one but in almost every case two registered medical men actually present at the death can state the proper cause of death and put it upon record. The plain fact is that there can be no more need for the judgment of a coroner and jury of laymen in cases of death during anæsthesia than in those of death following after a surgical operation; both may occur under medical care and skilled attendance and can be definitely certified as to cause by two or more medical witnesses. I venture to suggest that the Coroners' Society should reconsider the question on the basis of this proposal—namely, that a death during surgical anæsthesia be considered amply accounted for by a certificate signed by two legally qualified medical practitioners, without the holding of a public inquest unless the patient's relations or those intimately concerned in the operation express some reasonable ground for dissatisfaction.

With regard to the inclination shown to desire hospital authorities to employ specialists to give the anæsthetics, there is no large London hospital without a number of skilled administrators of anæsthetics upon its staff, but it would be as reasonable to expect that a real expert can be found available to administer every anæsthetic at these institutions both by day and night as it would be to demand that the Government should only employ Royal Academicians to paint the park railings. For instance, if it were to be held that the hospital house surgeons and house physicians, who are in every case without exception fully qualified practitioners and usually are also fresh from skilled instruction in anæsthetics, were not competent persons to administer anæsthetics in the hospitals, what heaven-sent inspiration can make them more so on the day after they leave these posts and administer chloroform to their first patient in private practice? The argument could not be sustained that a registered medical man is not legally qualified to administer an anæsthetic, and any attempt to go behind his qualification in individual instances and inquire into the duration of his experience in public cannot be for the public good nor increase the safety of the public when entrusted to his care.

If some coroners, whose office unfortunately tends to make them reflect only upon the fatalities and not upon the millions of successful anæsthetic administrations, have begun to think that the teaching and opportunities for supervised practice in anæsthetic administration at the hospitals by the medical student *before* he goes up for his qualifying examinations are not as extensive as they might be, I would suggest that through the Coroners' Society they might lend most valuable assistance in supporting the memorial forthwith to be presented to the General Medical Council by the Medico-Legal Society asking for a definite enforced training in anæsthetics to be included in the student's curriculum for all medical qualifying examinations in the United Kingdom which will, if adopted, have the effect of raising the standard of skill in anæsthetic administration to be possessed by the rank and file of the medical profession.

I am, Sir, yours faithfully,

H. BELLAMY GARDNER, M.R.C.S. Eng., L.R.C.P. Lond.,
Late Anæsthetist and Instructor in Anæsthetics at Charing Cross Hospital, &c.

Harley-street, W., April 27th, 1908.

To the Editor of THE LANCET.

SIR,—I have read Dr. J. F. W. Silk's letter in your issue of April 4th and most thoroughly agree with the opinions he expresses. I wish to call special attention to statement No. 2, "In the majority of cases referred to by the coroners the primary cause of death was the nature of the accident or disease from which the patient was suffering and very remotely the anæsthetic." I think the result of my 33 years' experience in the eye department at Guy's Hospital goes far to show the correctness of this statement. With the exception of two cases of ligature of the common carotid, three or four of removal of the superior maxilla, two of trephining, eight of opening of the frontal sinuses, several for removal of orbital tumours, and a number of plastic operations on the eyelids and face taking half an hour or more for their performance, there were none in which the nature of the operation could by any chance have led to a fatal termination.

For nearly 12 years (1873 to 1885) my operations, with a very few exceptions, were performed under general anæsthesia. At the beginning of 1885 I began to use cocaine but not universally, for at first I did not believe in it and proceeded with caution; it seemed almost too good to be true. Later it to a great extent displaced general anæsthesia but by no means entirely so. I think, speaking off the book, that a very fair average of anæsthetic administrations for the 33 years would be not less than 300 a year, giving a total of nearly 10,000, a large majority of which took place during the first 12 years, during ten of which I was associated with the late Mr. Bader, and we used between us to do close on a thousand operations in the year (in one year I remember it was considerably over that number).

The anæsthetics up to quite recent years were invariably given by the dressers in the eye wards, none of whom had much previous experience; indeed, many of them gave an anæsthetic for the first time under my supervision. *Out of the whole number there was but one death, that of a patient suffering from exophthalmic goitre.* The anæsthetics chiefly used were in the early years bichloride of methylene and chloroform, but occasionally a new one was given a trial. Later A.C.E. mixture became the mainstay in the eye wards and continued to be up to the end of my time. My experience seems to show that deaths from anæsthetics *per se* are extremely rare and that those which, according to the coroners, are so frequent are due to other causes, and the less said about them in this connexion the better, especially if, as Dr. Silk says, the reports get into the lay press. In the interests of the public, who are already quite nervous enough about anæsthesia, the coroners, who can have no practical experience of the administration of anæsthetics, would do well to lay to heart two old proverbs: (1) That the cobbler should stick to his last; (2) That to speak is silver but silence is gold.—I am, Sir, yours faithfully,

CHARLES HIGGENS, F.R.C.S. Eng.
Consulting Ophthalmic Surgeon to Guy's Hospital.

Brook-street, W., April 10th, 1908.

To the Editor of THE LANCET.

SIR,—A letter appeared from Mr. Coroner F. J. Waldo of London in the Dublin *Evening Mail* of about 14 days ago in which he commented on the very few fatalities from chloroform which were reported from Ireland as compared with London. A somewhat similar state of affairs prevails with regard to Scotland, but Dr. Waldo suggests as an explanation that either Dublin hospital surgeons do not report chloroform fatalities or the Dublin coroner refuses to hold inquests thereon. As this theory implies a grave imputation it is right to say that as a member of the corporation inspection committee of the Dublin hospitals such a complaint has never been made to us regarding any of the surgeons, and such a complaint concerning the coroner has never been made to the Public Health Committee whilst I have been a member of it. It is fairly certain then that Dr. Waldo's conjecture is baseless as regards Dublin.

I am, Sir, yours faithfully,
J. C. MCWALTER, M.A. R.U.I., M.D. Brux.,
F.F.P. & S. Glasg.

Dublin, April 25th, 1908.

WORTH'S ADVANCEMENT OPERATION.

To the Editor of THE LANCET.

SIR,—In a notice of Colonel Maynard's excellent book on "Ophthalmic Operations" in THE LANCET of April 25th, p. 1216, the reviewer expresses the opinion that my advancement operation is "founded upon a fallacy and practical experience shows that it possesses notable disadvantages." Whose "practical experience"? I think that I may claim to have performed more advancement operations than most ophthalmic surgeons and I have used this operation exclusively during the last dozen years. I know from published accounts and private correspondence that this operation is used habitually by many of the most skilful operators both in this country and abroad. Its advantages are many. Its one disadvantage is that the stitches are not quite so easily removed as in some other operations. I do not for a moment suggest that your reviewer was actuated by personal motives when he went out of his way to make this remarkable statement. But I do respectfully suggest that such a statement should not have been made anonymously or without giving reasons.

I am, Sir, yours faithfully,
CLAUD WORTH.

Harley-street, W., April 27th, 1908.

THE INHALATION TREATMENT OF CONSUMPTION AND "CATARRH."

To the Editor of THE LANCET.

SIR,—I have read with great interest Dr. Ash's remarks that appeared in THE LANCET of April 25th, p. 1236, on the inhalation treatment of consumption. For many years I have advocated the inhalation method as an important aid in the treatment of pulmonary and laryngeal tuberculosis. It is quite true that the inhalation of volatile substances produced by the ordinary respirators, mouth inhalers, and sprays is not satisfactory, as it cannot reach far enough down the lungs to be of any real service in the arrest of consumption. Two conditions are necessary for any inhaler to be efficacious: (1) the inhaler should cover the mouth and nose; and (2) it must be continuously used for as many hours as possible. The anatomical structure of the lungs lends itself peculiarly to antiseptic treatment. For some years I have been using among my patients an oro-nasal inhaler containing a mixture of formalin, chloroform, and rectified spirit, with a few drops of oil of pine or eucalyptus. The advantage of this method is that the patient can use it walking out of doors or reading, writing, or otherwise employed indoors. The success, as Dr. Ash pointed out, depends upon its continuous use, at least from four to six hours a day. Another good method mentioned by Dr. Ash is that of impregnating a chamber with volatile antiseptic substances. I use the patient's room as an inhalation chamber in preference to a special inhalation room, and have devised a vapouriser in which one or two formalin tablets with a little menthol are volatilised, the room being made more or less air-tight by shutting the doors and windows. The advantage of this method is that for hours the room is charged with formalin vapour, enabling the patient to inhale the impregnated air and rendering his clothes and his belongings in the room aseptic. The patient can use both these methods in a sanatorium or in his own house. My experience is that perseverance often results in success. But the trouble is that patients will not persevere long enough.

I am, Sir, yours faithfully,
C. MUTHU.

Mendip Hills Sanatorium, Wilts.

THE ROYAL DENTAL HOSPITAL: A SPECIAL APPEAL.

To the Editor of THE LANCET.

SIR,—The Royal Dental Hospital has now been established 50 years during which time an incalculable amount of suffering has been relieved and many serious illnesses averted by timely attention to the teeth of the poorer classes.

The committee of management wishes to celebrate the jubilee by making a special appeal to extinguish the debt on the building which so seriously cripples the funds of the charity. This debt was sanctioned by the Charity Commissioners and entailed a yearly payment to the mortgagees of £2,975 17*s.* 4*d.* for 30 years from 1902, of which 24 years are yet unexpired. There now remains £47,404 1*s.* 7*d.* to be paid to wipe off the debt altogether, and it is for contributions, however small, towards this sum for which the committee now appeals. This would mean a saving in the 24 years of about £33,000 in interest alone, and the money thus set free would be devoted to maintaining the hospital in a much greater state of efficiency than it is at present. It is within the knowledge of everyone that the teeth of the majority of the poorer classes are in a deplorable condition, and that a great number of the children require long and expensive treatment to save them from life-long disfigurement and inconvenience. This they can only obtain at a dental hospital. Over 100,000 operations were performed here last year, half of which were under anæsthetics.

The Royal Dental Hospital should command universal sympathy and support, not only for the benefits it has conferred on its own patients but also because it was the first dental hospital established in England, and from it all skilled dentistry in this country has developed, thus adding to the health, comfort, convenience, and happiness of all classes of the community. About 1200 students have been educated in the hospital and school. After 50 years of hard work it is earnestly hoped that this truly national institution may be freed in this, its jubilee year, from the burden of debt under which it is still struggling.

Sir Frederick Treves, Bart., G.C.V.O., C.B., LL.D., consulting surgeon to the hospital, has kindly consented to preside at a festival dinner to be held at the Hotel Cecil on June 25th in aid of the "Special Appeal Fund." Contributions may be sent to the secretary of the hospital.

We have the honour to remain,
Your obedient servants,

ROTHSCHILD, President.
KINNAIRD
F. A. BEVAN (Treasurer)
RICHARD WINCH
} Trustees.
JOHN H. HALE, Chairman

Royal Dental Hospital, 32, Leicester-square, London, W.C., April 23rd, 1908.

NOTES UPON HEALTH RESORTS.

SCANDINAVIAN WINTER HEALTH STATIONS.

(BY A SPECIAL COMMISSIONER.)

II.[1]

NORWAY'S WINTER HEALTH RESORTS.

NORWAY is well known to many as a land particularly rich in opportunities for the holiday maker and offering varied facilities for the sportsman. But its claims to be counted among the chief of European countries on account of its health resorts have not been duly recognised either in this or other lands. The fact is Norwegians themselves have only within recent years realised the possibilities of their homeland for the establishment of all-the-year-round health stations. The natural characteristics are eminently suitable but hitherto enterprise has been lacking in the opening up of the country and the provision of suitable residential establishments for visitors. The smallness of the native population and the somewhat isolated position of Norway have no doubt been in great measure responsible for the delay in the development of health centres. Now that Switzerland is being overrun with trippers of all nations it is but rational and reasonable that many should be desirous of seeking places where all the health advantages of "the playground of Europe" may be obtained without the increasing discomforts of overcrowded hotels and the disadvantage of fashionable and sports-loving manners of life. To all lovers of the simple hygienic life and to those requiring excellent climatic conditions for the winning back of health and the recuperation of strength Norway is likely to appeal more and more as its benefits become better known.[2]

A movement is now taking place in Norway which promises to make the country better known to Norwegians themselves and its many advantages realised by other countries.[3] Hitherto physicians have been slow to realise the nature of the climatic conditions prevailing in this land and the many advantages which they offer for the health seeker.

While the fjords of the west coast are best known to the ordinary tourist they by no means offer the finest climate for the health seeker. This, generally speaking, is to be obtained on the highlands and in the wide and open valleys in the inland districts, such as Valdres, Gausdal, and Gudbrandsdal. The new line between Bergen and Christiania opens up a country which should in the near future become extensively developed as centres for excellent health stations. The suggested extension of the railway from Otta to Trondhjem over the Dovrefjeld should also lead to the establishment of many desirable new health resorts.

From a health standpoint the mountain climates of Norway are of particular benefit. They can be conveniently divided into (1) the high altitude or alpine climate, or as it has been well termed locally the "Hoifjeld" region, commencing at between 2500 and 3000 feet above sea level; and (2) the medium altitude, or subalpine climate, or "Hoilids" region, 1500 to 2500 feet above sea level.[4]

For some cases the valley and lowland districts offer special advantages and in summer the coast climate, in the south especially, is excellent.[5]

[1] No. I. was published in THE LANCET of April 25th, p. 1238.

[2] Dr. P. A. M. Mellbye of Christiania, with whom I discussed the question of Norwegian health stations, has published a useful reference work on the subject, "Norges Kursteder og deres Kurmidler" (Alb. Cammermeyers Forlag. Kristiania), with helpful map marking the chief "kursteder." It is to be hoped that an English edition of this informing manual may soon be available.

[3] The Norwegian Tourist Traffic Association (Forening for Reiselivet i Norge), 2, Storthingsgaden, Christiania, under the able and enterprising direction of Mr. H. Malling, to whom your Commissioner is indebted for much kindness and information, is doing much for the opening up of Norway. The association publishes a useful "List of Hotels, Sanatoria, and Skyds Stations" and all visitors to Norway would do well to avail themselves of the publications and assistance of this valuable organisation.

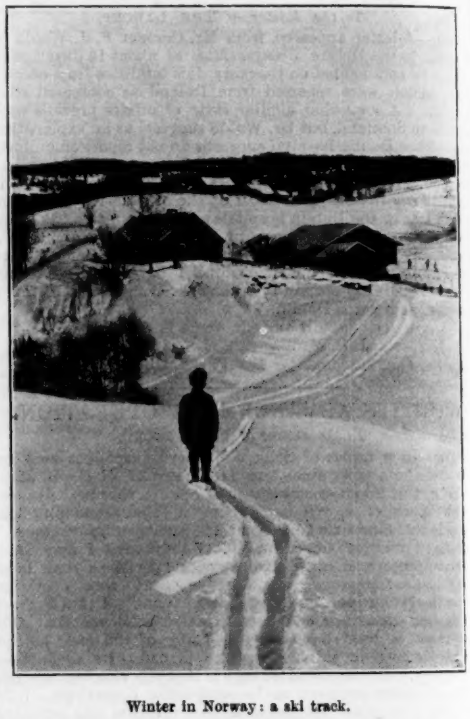
[4] For much valuable information regarding climatic conditions and meteorological data see "Norway as a Winter and Summer Health Resort," by Dr. A. Magelssen. English edition, translated by Mr. John Sörensen of Tofte Sanatorium, Hundtorp.

[5] Prospective visitors to Norway would do well to consult the interesting and informing Year Books of the Norwegian Club, 112, Strand, W.C.

WINTER CLIMATIC CONDITIONS.

As it is proposed to restrict consideration to what are essentially the winter health resorts of Norway, a few words on the climatic conditions prevailing during the winter season will not be out of place. Most erroneous impressions exist in many quarters as to the nature of the weather and the manner of life existing in Norway during this time of the year, when it can offer but little evidence for its claim to be called the "Land of the Midnight Sun." Over a great part of the country snow lies from November or at all events from well before Christmas to March or on the uplands till as late as Easter. (Fig. 1.) Thus for some four or more months winter sports may be enjoyed in all their fulness and variety. Although the early mornings are dark and the nights long, the difference from England is not conspicuous except in the very northerly parts. In most of what may be called the health resort districts the winter characteristics are excellent. These are particularly noticeable in the Norwegian Highlands. Here the air is dry, clear, rarefied, and the barometric pressure low. Although keen frost may

FIG. 1.



Winter in Norway: a ski track.

prevail the cold is but little felt and when one is well wrapped up in furs causes no discomfort. In sheltered and snow-covered districts but little wind is experienced. Extensive forests often afford admirable protection. Much more sunlight prevails than we are accustomed to in cloud-covered England and its luminous and actinic effects seem to exercise considerable beneficial influence on many patients. But little rain falls except in the west and sea-coast districts.

The snow descends usually in special "falls" and the land being thus protected all dust is avoided and by reflection the effects of the sun-light are increased and intensified. Fogs in the highland districts are rare and never produce those depressing and irritating effects which we know so well at home. The air is also said to be rich in ozone and electrical qualities. In the greater part of the country the soil is dry and hygienically favourable.

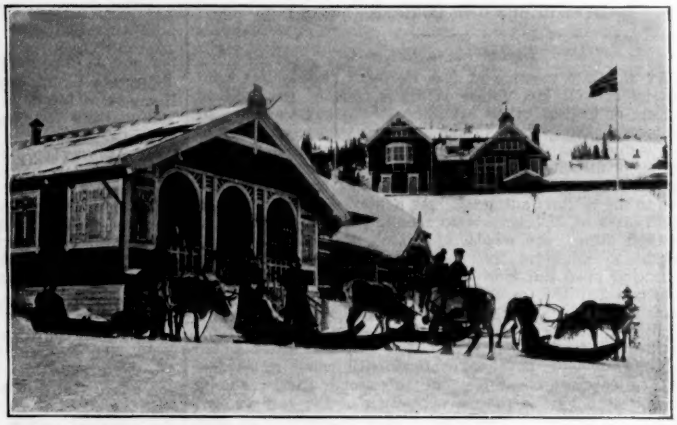
Having travelled throughout the greater part of the country during portions of the months of January and

February of this year your Commissioner has been very much impressed with the natural advantages which Norway offers for the establishment of winter health resorts.

THE BENEFITS OF WINTER SPORT.

¶ It is only of recent years that Englishmen have begun to realise the benefits of wisely directed winter sports, not only as a means for refreshing the mind but renewing the body. During recent years large numbers of town dwellers and brain-workers have snatched a few weeks for a midwinter holiday amidst the snow and ice of Switzerland. The prophylactic virtues of a winter's holiday can now be attested by many. For those desirous of breaking new ground or of enjoying opportunities for winter sports, such as reindeer sleighing (Fig. 2), Norway may

FIG. 2.



Reindeer driving at mountain hotel, Trondhjem.

FIG. 3.

Ski-touring.

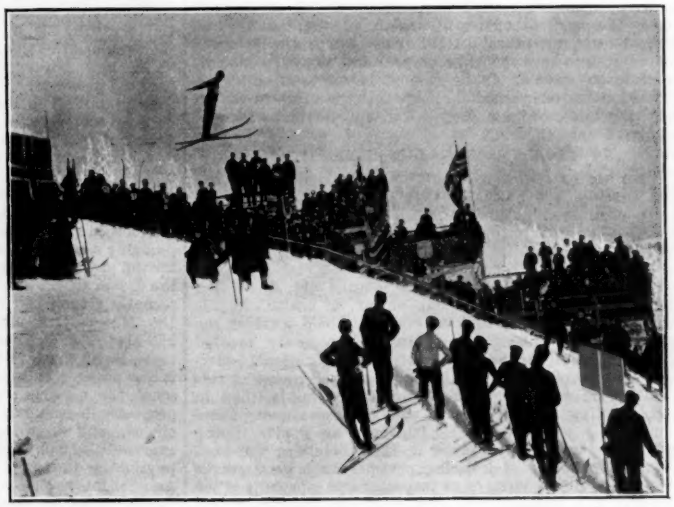
be recommended as affording endless opportunities for exploration. Within the limitation of a short article it is impossible to describe adequately the fascination and charm exercised by the outdoor life and active pursuits as practised by the Norwegians. All, from the King and Queen and little Prince Olaf to the tiniest country beggar, seems to be most at home when tobogganing or ski-ing. Girls and women are keen enthusiasts for winter sports and certainly these rational forms of exercise are doing much for the development of the youth of the nation. The co-education of the sexes is thereby encouraged under the healthiest and happiest conditions. For many pampered, self-centred, delicate English children I can imagine nothing more beneficial than a winter in Norway.

If a personal reference may be permitted as evidence of the prophylactic powers of Norwegian residence, your Commissioner may note that this is the first season for many years that he has succeeded in resisting invasion by influenza. Perhaps some annual victims of *la grippe* might consider a voyage across the North Sea, however rough, a welcome means whereby to escape an inveterate enemy.

Almost all forms of winter sports may generally be enjoyed in and about Christiania, although in up-country resorts ski-ing and some other forms may usually be had in greater fulness and extent. Ski-ing on the high mountains is a form of mental and physical enjoyment known only to Scandinavians. Winter touring on skis exercises a fascination for the young and vigorous and is an admirable means for developing nerve and muscle and character.[6] (Figs. 3 and 4.)

[6] Captain Carl Roll has written an attractive, informing, and well illustrated booklet in English on "Winter Sport," which may be obtained from the Norwegian Tourist Traffic Association, 2, Storthingsgaden, Christiania. "The Winter Sports Annual, 1907-8," edited by E. Wroughton (London: Simpkin, Marshall, and Co. 1907. Price 2s.), contains much useful information respecting routes and fares to Norway and its chief sporting centres.

FIG. 4.



Ski-jumping.

WALES AND WESTERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENTS.)

Diphtheria in Holywell.

AT the last meeting of the Holywell (Flintshire) rural district council Mr. James Williams, one of the medical officers of health, called attention to the large amount of sickness among school children and said that a great deal of it was due to imperfect scavenging and to the large accumulations of filth at many of the houses. The conditions which he had found were a disgrace to the owners, to the occupiers, and to the sanitary authority. At a previous meeting, when eight cases of diphtheria were reported upon as having been notified during the month of March, the district council sought to minimise the seriousness of the outbreak by reflecting upon the *bona fides* of the medical practitioners who certified the cases, one member of the council remarking that "if a person had a sore-throat it was diphtheria right away; the mistake was the half-crown notification fee." It is a pity that the difficulties which sanitary officials have to contend with when endeavouring to check an outbreak of infectious disease should be increased by the passive opposition of the very persons who ought to render assistance. It is indifference of such bodies as the Holywell rural district council which made it possible for Sir John Dickson Poynder's Committee to recommend the transference of certain administrative powers to the county councils.

Infantile Mortality in Newport.

As the result of a conference recently held at the Newport (Mon.) town hall it has been decided to form a ladies' public health society upon the lines of the organisation which has for many years done such good work in Manchester. The primary object of the newly formed society is to coöperate with the sanitary committee of the corporation in its attempt to lessen the amount of infantile mortality in the borough. A female health visitor has been employed by the committee for more than five years and in his last annual report the medical officer of health (Dr. J. Howard-Jones) pointed out that the substantial reduction in the infantile mortality rate during the previous five years ought to encourage the corporation to take still further action in instituting preventive measures. At the conference referred to it was decided to establish a fund for the purpose of providing proper nourishment for expectant mothers who were not qualified to receive Poor-law relief.

Medical Inspection of School Children.

The Gloucestershire county council has appointed Dr. J. Middleton Martin as a whole-time medical officer of health and to undertake, with assistance, the medical inspection of the school children in the county. The Carmarthen town council has appointed Mr. L. M. Bowen-Jones, the medical officer of health of the borough, as medical inspector of school children. There will be about 600 children to be inspected each year and the payment proposed to be made is at the rate of 1*s.* for each child. A suggestion was unsuccessfully made that the payment should be 2*s.* per head, while a proposal that it should be 6*d.* met with but scant support.

The Notification of Whooping-cough.

There are so few districts in which whooping-cough has been continuously notifiable that the results obtained are always of interest. The disease has been included in the list of diseases notified in the rural district of Llandaff and Dinas Powis since the adoption of the Infectious Disease (Notification) Act in 1890. There were notified last year 186 cases, and six children, all under eight months old, died. Dr. Richard Prichard, the medical officer of health, in his annual report suggests that the council should consider the desirability of utilising some part of the newly erected isolation hospital for the purpose of isolating patients suffering from whooping-cough. Unless some such course as this is taken he considers that he would not be justified in recommending the continuance of the disease among those compulsorily to be notified. It would be a pity if any precipitate action were taken in this direction, for even without the means of isolating patients much good can be done by the timely visits of an inspector and especially if the inspector is a woman. The case mortality from whooping-cough in the rural district in 1907 was 3·2 per cent. and in the preceding ten years it was 5 per cent.

April 21st.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

The McAlpin Nursing Home, Glasgow.

THE new buildings in connexion with the McAlpin Nursing Home were formally opened last week by Lord Inverclyde. This marks a new epoch in the history of nursing homes in Glasgow. The home was first started in 1874 in a humble way. It was the pioneer nursing home in Glasgow and led the way to an immense improvement in the housing and treatment of private patients, especially those who had to come from the country to undergo an operation. From its inception this institution has done a great deal of charitable work, over one-third of the patients, it is stated, being treated at considerably less than cost. Although the home has recently been incorporated no part of the income can be paid away in dividends. Any surplus accruing is to be expended on reducing the fees to those charged less than the cost of their board and nursing and in extending the institution. The new building has been specially designed and constructed for the purpose of a nursing home and contains accommodation for 24 patients in single and private rooms, six in double rooms, and two wards of six beds each. All the principal private rooms have a southern exposure and each one is provided with a separate outside balcony. The operating theatre is fitted up on the most modern lines and the building is fire-proof throughout.

The University of Glasgow "Commemoration Day."

A most interesting and attractive gathering took place at Gilmorehill on April 24th, when the University celebrated its Commemoration Day. Not only did graduates from all parts of the country return to pay homage to their *alma mater* but representatives from sister universities and from the town council were also present and helped to make the assembly a representative one. After Principal MacAlister had read the commemorative preface an oration was delivered by Professor Gray on Lord Kelvin, the late Chancellor of the University. Thereafter honorary degrees were conferred by the Vice-Chancellor. Colonel David Bruce *in absentiâ* received the degree of LL.D. for his researches in connexion with Malta fever, tsetse fly disease, and sleeping sickness. The same degree was conferred upon Dr. J. C. McVail, who for the past 18 years has been medical officer of health of the counties of Stirling and Dumbarton. In the evening the commemorative dinner was held in the Bute Hall. It was attended by over 200 ladies and gentlemen. The principal guests of the evening were the honorary graduates of the day.

Honour to Glasgow Professors.

Last week an interesting presentation took place to Dr. J. G. McKendrick, late Professor of Physiology at the University of Glasgow. It consisted of a portrait for the University by Mr. J. H. Lorimer, R.S.A., a sum of £450 for the equipment of the Laboratory of Experimental Psychology in the new physiological buildings, and a silver tray as a personal souvenir. The portrait and the tray had suitable inscriptions. The movement originated a year ago in the business committee of the general council, which thought that a mark of respect should be paid to the Professor of Physiology on the occasion of his retirement. In his reply Dr. McKendrick referred to the 30 years of his professorship in Glasgow, during which time more than 4000 students had passed through his hands. Since 1876, when he became professor, something like £17,000, in addition to the sum expended on new laboratories, probably amounting to £20,000 more, had been contributed for the physiology department. The result of this was that the dream of his life had been fulfilled. Referring to the recently established lectureship of Experimental Psychology Dr. McKendrick said that was a subject in which he had always been interested. This lectureship was intended to deal with the investigation by physical methods, so far as it was possible to apply them, of the action of the organs of sense, the nervous processes in general, and of the nervous processes in connexion with sensation, perception, emotion, choice, and even certain mental acts. As a subject experimental physiology and psychology lay between physiology and psychology connecting one with the other. Another interesting presentation was made to the University by Principal J. Yule Mackay. This consisted of a bronze medallion of the head of Professor Cleland, to be preserved permanently in the anatomical museum of the University. He made the gift, he said, on behalf of 17 men

who had had the rare good fortune to be assistants to Professor Cleland. They made the presentation as a token of their gratitude and admiration for Professor Cleland. He had been to them their great master. He had in a profound manner influenced the lives for good of all who had come into association with him and he had ever held up before them an ideal of science viewed from the purest and loftiest aspect, and he had also taught them to seek for truth and beauty at one and the same source. The museum had been entirely the work of Professor Cleland and it was fitting that within the building there should be a memorial of him who created it.

Hospital for Skin Diseases, Glasgow.

At the annual meeting of subscribers to this hospital regret was expressed at the loss sustained by the hospital in the death of Sir Thomas McCall Anderson, to whose distinguished services since its foundation the hospital owed its success and fame. During the past year 1915 new cases were admitted and 83 cases were treated in the wards of the Western Infirmary connected with the hospital. Since the foundation of the hospital in 1861 63,411 patients have received outdoor treatment, and since the opening of the Western Infirmary 33 years ago 3208 patients have benefited by indoor treatment. 89 students attended the clinique during the summer session.

Braemar Parish Council: Medical Officership.

The Crathie and Braemar parish council met on April 21st when the question of the medical officership was again under discussion. It is understood that several applications for the vacant post were received. After discussion it was agreed that no appointment should be made meantime but that a subcommittee of three members should be appointed to endeavour to get a suitable man to apply. The present medical officer's appointment expires on April 30th, so that in all probability the parish will be without a fund medical officer and consequently will lose the medical relief grant.

Death of Miss Rachel Lumsden, Aberdeen.

The death occurred at Aberdeen on April 22nd of Miss Rachel Frances Lumsden, formerly superintendent of the Royal Infirmary of Aberdeen. Miss Lumsden, who belonged to a well-known Aberdeenshire family, received her training in London. In 1877 she was appointed honorary superintendent of the newly established Hospital for Sick Children in Aberdeen and with such conspicuous success did she carry out the duties of this post that when in 1885 she offered to undertake the office of superintendent of the Royal Infirmary at a critical period in its history great satisfaction was everywhere expressed. Her services at both these institutions were rendered without fee or reward of any kind. Under her management the nursing became entirely reorganised. In 1897 when she retired after 12 years' service she was the recipient of an address engrossed in a beautiful album and signed by all the gentlemen in the medical profession in Aberdeen connected with the University, the infirmary, Sick Children's Hospital, and other public charities. Miss Lumsden was appointed by the late Queen Victoria a member of the council of the Scottish Board of the Queen Victoria Jubilee Institute of Nurses. She was also one of the leading members of the Royal British Nurses' Association, and the first lady to organise a Scottish hospital on the English system of admitting probationers for a three years' training under the direction of sisters.

April 28th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

The Irish University Bill.

Mr. Birrell's University proposals have excited very considerable interest in Cork and the South of Ireland generally. When the text of the Bill was published several letters appeared in the local press criticising the provisions of the measure as they affect the Cork Queen's College. It was pointed out that from Mr. Birrell's explanatory statement it appeared that a special grant of £10,000 would be given to the Cork College but that in reality such was not the case as professors' pensions and the cost of maintaining the buildings, &c., which are now defrayed out of Parliamentary grants, would in future be provided for out of College funds, that in fact the Treasury proposed giving with one hand and taking away with the other. Stress was also laid on the evils of a federal university, a system which has been tried and found wanting in England. Attention, too, was specially directed to the advantages which Dublin students have at the Royal University over all others owing to their being in touch with the examiners, and it was urged that the establishment of a university for Munster would be the only means of getting rid of that difficulty. Accordingly several public bodies pronounced in favour of a separate university for the South of Ireland. The Cork town council and the Cork board of guardians passed unanimously propositions urging the Government to convert the Cork Queen's College into a university. The Lord Mayor of Cork and the chairman of the Cork county council summoned a meeting of the people of Munster to discuss the provisions of the Bill and on Saturday last a very large and particularly representative meeting was held in the City Hall, presided over by the Earl of Bandon, His Majesty's Lieutenant of the county of Cork. The first speaker was Mr. William O'Brien, M.P., who recently offered £50,000 towards the establishment of a university in Cork. In the course of an eloquent address he expressed the conviction that a university in Cork would alone meet the educational requirements of the people of the South of Ireland, but he felt convinced that there is no chance of engrafting such a proposal in the present Bill though later a university was sure to come. Accordingly, he recommended that the Bill should not be wrecked but that an endeavour should be made in Committee to improve it as far as the Cork Queen's College is concerned. He then proposed a motion that no settlement of the university question could be regarded as final which did not provide for the establishment of a university for Munster. The motion was seconded and carried with acclamation.—The Committee on Public Questions, Rights, and Privileges, composed of ministers and laymen representing the Methodist Church in Ireland, has published a series of resolutions protesting against Mr. Birrell's University Bill on the grounds of its endowing denominational universities, because of its curtailment of the privileges enjoyed by Methodists in the Royal University in depriving them of adequate representation on the Senate, and because of its doing away with extern students. The committee has asked the Chief Secretary to receive a deputation to hear from it more fully the views of the Methodist Church in Ireland on the university question.

The Re-foresting of Ireland.

It is a remarkable fact that Ireland, which was in olden time known as "the Isle of the Woods," is now the least wooded of all north-western countries, with the single exception of Iceland. The report of the forestry committee appointed by the Department of Agriculture has just been published and shows that while Austria leads off with a 32 per cent. surface of forest cover, and Denmark—a purely agricultural country—presents 7 per cent., England has 5·3 and Scotland no less than 4·6; while the ragged remnant of its forest foliage covers but 1·5 per cent. of the surface of Ireland. The question of re-foresting has now been vigorously opened. It has received the favourable attention of their Excellencies the Earl and Countess of Aberdeen and Mr. Charles Dawson, a former Lord Mayor of Dublin, is an enthusiast in the movement. It is claimed that the presence of forests has a beneficial effect on climate and, further, that on the elevated portions of the country's surface the very existence of the soil depends on their presence, without which the process of weathering never fails to lay bare in time the skeleton rock. The advocates of the movement further hope that it may lead to the establishment of a substantial timber industry and promote in other ways the health and wealth of the country.

School Attendance in Dublin.

There has been a marked irregularity in school attendance by the Dublin children recently. The unusually cold weather had undoubtedly something to answer for; so had the recent return of the "spotted fever" scare. It has also been urged that the school rolls do not adequately represent the school-going age of the section of the population in question. The fact has, however, come to the surface that there is an approximate average absence from school every day of one in four of the children enrolled. This represents a daily item of 11,000 non-attendances. The report of the school attendance committees for 1907 states that the inspectors might accomplish their mission if the occupiers of the

tenement houses were permanent residents, but the greater proportion of them are a kind of floating population depending on chance for a living and being unable to pay their weekly rent are ejected and remove to some other district there to undergo a similar process of ejection in due course. This migratory style of existence is both baffling and disappointing to the best efforts of the school attendance officers and the extent to which it is indulged in can be imagined when it is stated that there are upwards of 250 ejectment cases disposed of in the police courts weekly. It illustrates one of the special evils of tenement-room residence in which no healthy human tissue-fibre—physical, moral, or intellectual—can possibly flourish.

Women's National Health Association for Ireland.

In the Women's National Health Association for Ireland the Countess of Aberdeen appears to have succeeded in an effort in which all preceding political philanthropists had failed—that of bringing together all creeds and classes with the common object of improving the physical conditions of the victims of disease and of poverty—with the ignorance contributory thereunto. Dr. Shamus O'Brien has been set free, by special arrangement, from his duties as dispensary medical officer for the purpose of giving courses of lectures in Irish to the inhabitants of Irish-speaking districts. A committee has been formed with the special object of sustaining his efforts, and the association is very appropriately represented thereon in the person of Dr. Michael F. Cox, senior physician to St. Vincent's Hospital, Dublin, who is a county Roscommon man by birth, and possesses a rare knowledge of Irish history, archæology, and folk-lore. Some of the Registrar-General's valuable diagrams have been prepared with Gaelic texts; and pathological specimens, with coloured diagrams, have been contributed by Professor E. J. McWeeney and Professor A. E. Mettam (of the Catholic University Medical School and the Royal Veterinary College respectively), who are also members of the committee of the Women's National Health Association.

April 28th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

The Fat Treatment of Diabetes.

M. Maignan read a paper before the Biological Society on April 11th in which he submitted that the only food-stuffs completely used up by diabetic tissues are the fats, because they are the only bodies which do not form sugars in their disintegration. For the subjects of this disorder carbohydrates ought to be forbidden as far as possible, proteins reduced to the minimum—that is to say, to the lowest quantity absolutely necessary for the body's metabolism—and these food-stuffs should be replaced by the fats. M. Maignan, working with M. Arloing, has tried this treatment upon diabetic patients and obtained results similar to those which they had observed in dogs—namely, the disappearance of the sugar, the diminution of the urea and acetone excretion and of the quantity of the urine, the restoration of the patient's vigour, and the immediate arrest of the bodily wasting in severe cases.

The Clinical Employment of Ethyl Chloride as a General Anæsthetic.

The most frequent cause of death during general anæsthesia is syncope, either of toxic or of nervous origin, according to a paper read by M. Camus at the same meeting. He accordingly urged that chloride of ethyl should be employed with slow and progressive dosage. He uses for this purpose a specially constructed mask and is able to induce complete anæsthesia with very small doses (as a rule of from one to three cubic centimetres) in the space of two minutes. The requisite quantities of the drug are put up in glass capsules prepared beforehand and administered first at a temperature of zero, with subsequent gradual warming. This method allows of the better control of the rate of evaporation and avoids the risks of asphyxiation or of toxic complications. The typical clinical picture of anæsthesia is produced gradually and in the same manner the state can be maintained with safety and accuracy.

The Action of Bicarbonate of Sodium on Gastric Secretion.

M. Linossier and M. Lemoine at the Academy of Medicine on April 15th recapitulated the observation which they made as far back as 1893 that bicarbonate of sodium stimulates gastric secretion in whatever doses and at whatever time it is given, but that its action varies according to the activity of the secretory process. Recent experiments confirm this statement, and they find that its effect on the stomach is in inverse ratio to the richness of the gastric juice in hydrochloric acid, being very marked in subjects with less than the normal output and scarcely appreciable in persons with marked hyperchlorhydria.

Disease in the Army.

The following figures are extracted from a recent return of the incidence of disease in the army for the period 1900 to 1905, both for the home and African troops. In the home army influenza accounts for 21 per cent. of the total sick lists; the enteric fever returns form 3·7 per cent.; measles, 18 per cent.; scarlet fever, 8 per cent.; malaria, 15·2 per cent.; dysentery, 1·66 per cent.; tuberculosis, 5·9 per cent.; broncho-pneumonia and capillary bronchitis, 3·8 per cent.; pleurisy, 7·64 per cent.; inflammatory conditions of the throat, 69 per cent.; and venereal diseases, 29·1 per cent. In Algeria the figures are different: influenza, 5·1 per cent.; enteric fever, 11·2 per cent.; measles, 12·2 per cent.; malaria, 12·8 per cent.; dysentery, 7·66 per cent.; tuberculosis, 5·9 per cent.; bronchitis, 3·6 per cent.; pleurisy, 5·9 per cent.; inflammatory conditions of the throat, 34·7 per cent.; and venereal diseases, 72·2 per cent. There is a slight diminution in the occurrence of nearly all these diseases except the last two mentioned.

April 28th.

ITALY.

(FROM OUR OWN CORRESPONDENT.)

Cretinism.

IN Milan, before a post-graduate audience, reinforced by many of the lay public, Dr. Vitale Tedeschi, professor of children's diseases in the University of Padua, has just delivered a lecture "Sulla Lotta contro Cretinismo" (on the Struggle against Cretinism)—a struggle, I may add, which is only at its initial stage against a malady long endemic in Italy. Cretinism, he set out by remarking, used to be regarded as a special form of degeneration, congenital or hereditary, similar in nature to idiocy. Latter-day science, on the contrary, holds that, in the production of the cretin, degeneration and heredity are only accessories. "Cretinism," continued Professor Tedeschi, "is, *per se*, a true and specific disease." This position he proceeded to fortify by experimental data which go to prove that cretinism is not manifested before the sixth or eighth month of life, and that, moreover, the ancient opinion was well founded according to which a determining factor in the etiology of cretinism is the quality of the drinking water. This opinion has been confirmed by recent research showing the causal connexion between the cretinism of certain communities and the composition of the water which they consume—cretinism appearing for the first time in localities supplied with drinking water from a new source, identical in quality with that imbibed in the regions subject to the disease; and, on the other hand, disappearing from the latter when the water has been introduced from a fresh and traditionally sound reservoir. In further confirmation of this position, Professor Tedeschi instanced cases of *neo nati* brought from immune districts, and belonging to families equally immune, contracting the disease when put out to nurse in an infected locality. While these are facts inductively established, chemical analysis of the incriminated water has as yet disclosed nothing to account for the disease. Cretinism, according to the findings of hydrographic research in the infected districts, is often manifested in close connexion with goitre; nay, we see in those districts a direct parallelism between the frequency and intensity of goitre and the frequency and intensity of cretinism. The element common to the two is constituted by alteration, structural and functional, in the thyroid gland. This organ was, until a few years ago, an *opprobrium physiologiæ*; now it is recognised as one of the most important organs of the human body. "It is," continues Professor Tedeschi, "the grand regulator of 'growth' in the largest sense of the word—of 'growth' in the intellectual as well as in the physical sphere. Of great organic changes it is always the concomitant, undergoing modifications in all the leading phases of organic life—phases more or less intimately, more or less nearly, connected with the reproductive functions. On its integrity depend the normal

elaboration of the blood, the normal development of the bones, the normal nutrition of the hair, of the skin, of the subcutaneous adipose tissue; nay, certain traits of character, shown in tendencies intellectual or moral, are in close dependence on its function. Accordingly, in cretinism we find the thyroid to have undergone alterations which, from degenerative forms more or less complex represented by goitre (cases of 'goitrous cretinism') go on to the arrest of the development of the gland itself (cases of 'non-goitrous cretinism')—all the cases in question being coincident with perversion or suspension of function in the thyroid." Italy, according to recent statistics, numbers 15,000 cretins, but that total is far below the truth. Besides the registered cases there exist many others in which the *ensemble* of symptoms being "incomplete" escapes the diagnosis of the layman, only the intellectual manifestation of the disease being apparent, but which all the same are cases of "cretinism" pure and simple. Such a malady, overt or masked, Italy must spare no effort to combat. What are the weapons available? There are two, differing in kind. The first takes cognisance of the conditions under which the malady develops. This development (*sviluppo*) is intimately connected with the quality of the drinking water, which contains principles acting directly in the adult, indirectly in the infant (through the nurse's milk), on the thyroid gland, the structure of which they alter and the normal evolution of which they inhibit. These principles have yet to be discovered, and until this is done the remedy is obviously to provide the infected locality with water possessing a good record as supplied to non-cretinous communities. The second weapon in combating the disease is the administration to the sufferers of the well-known preparation from the thyroid of the lower animals—the preparation elaborated by Ganghofer and Wagner, whose experiments, checked and confirmed by Professor Tedeschi himself, have put it beyond doubt "that in this weapon we possess a means of cure as effective in cretinism as quinine is in malaria." Hundreds of children, continued the lecturer, in Italian as in Swiss practice, have been cured by this means in a few weeks—changes physiological and psychological having thus been wrought in cases which seemed doomed for life "to obfuscation of the mind and to decrepitude of the body." Professor Tedeschi concluded his loudly applauded lecture by an appeal to his compatriots, professional and lay, to give the Government no rest until the two weapons above mentioned have been vigilantly and vigorously put in operation in the cretinous districts. A committee *ad hoc* has indeed been formed, its president being Professor Mangiagalli, with Professor Belfanti, Professor Devoto, Professor Foa, and Professor Tedeschi himself as assessors. *Quod felix faustumque sit!*

April 24th.

VIENNA.

(FROM OUR OWN CORRESPONDENT.)

A Successful Case of Talma's Operation.

Dr. Albrecht showed at a recent meeting of the Medical Society a man who had been suffering from alcoholic cirrhosis of the liver and on whom Talma's operation was performed in January, 1906. The previous history was to the effect that eight months before the operation icterus and ascites had been noticed and œdema of the legs soon incapacitated him. At the operation an incision about six inches long was made across the abdominal wall parallel with the left costal arch and the omentum and the lower extremity of the enlarged spleen were sutured to the abdominal wall. There was troublesome hæmorrhage on account of the friability of the spleen, but this was stopped by packing and the wound in the skin was partially closed. In the first few weeks after the operation the ascites reappeared, but two months later the patient himself noticed that the circumference of his abdomen had diminished. He could now resume work and became an omnibus conductor, in which occupation he jumped on and off the vehicle many times a day without experiencing any ill-effect. Two years after this operation the patient presented himself to have an operation performed for hernia. He said that there had been no return of the œdema in his legs and there was at that time only a little ascites still present. The collateral circulation was established and the caput Medusæ formed by the anastomosis and enlargement of the inferior epigastric, the mammary, the intercostal, and the thoraco-epigastric veins was clearly demonstrable. The case was interesting because some authorities believed icterus to be a contra-indication for Talma's operation. The technical aspect of the operation also deserved notice because the spleen was resorted to for the purpose of establishing collateral circulation. Ito and Omi have shown that the omentum alone was not sufficient in all cases. The results of Talma's operation were very favourable. At present most surgeons found that about 33 per cent. of the cases recovered, 33 per cent. were improved, and the remainder were not benefited. Dr. Albrecht believed that if the operation were performed more frequently the larger experience thus gained would make the indications for it clearer and would lead to still better results.

A Proposed Central Board of Public Health.

In the last session of the Austrian House of Lords Privy Councillor Professor Ludwig (professor of medical chemistry in the University of Vienna) moved a proposition asking the Government to bring in a Bill which would extend the existing statutes on the subject of public health and also to order the formation of a Central Board of Health. The proposed Bill would provide that all the scientific institutes necessary for carrying on the work of the medical officers of health should be adequately endowed, that these officers should have facilities for keeping in touch with the latest discoveries of science and for attending post-graduate courses of instruction, and that their official position should be improved so as to induce the best men to seek these appointments. In supporting the proposal he pointed out that Austrian sanitary institutions were at present rather behind the times, that the grants available for them had been fixed too low by the financial authorities, and that many departments of public importance dealing principally with medical questions were not controlled by medical men.

Compression of the Vena Cava Superior by an Aneurysm of the Aorta.

Dr. Weinberger recently described the case of a man who had contracted syphilis 18 years ago and who had for the last six months suffered from pain in the arms and swelling of the face and upper part of the trunk. At present he was affected with cyanosis and œdema, which reached as far as the costal arches in front and to the lumbar region behind, whilst the lower part of the body was free from œdema. The cyanosis was also well marked on the visible mucous membranes. The cutaneous veins of the upper part of the body were dilated. On both sides of the sternum there was a region which gave a dull percussion note and also pulsated a little, whilst on the x ray screen a shadow having a movement of pulsation was visible. On these grounds an aneurysm of the arch of the aorta was diagnosed. Dr. Weinberger believed that the aneurysmal enlargement was compressing the vena cava superior, but it was not impossible that a perforation of this vein by the aneurysm had already taken place, producing an arterio-venous aneurysm. He said that either condition would be accompanied by the extreme cyanosis seen in the patient, but at present there was no means of making a differential diagnosis between them even with the aid of the x rays.

April 27th.

NEW YORK.

(FROM OUR OWN CORRESPONDENT.)

Rights of Working Women.

THIRTEEN years ago the Supreme Court of the State of Illinois decided that a State could not, under the Federal constitution, restrict the working hours of adult women. This decision has had the effect of retarding legislation in favour of working women in this country, though two or three States have been governed by the decision of the highest court of Massachusetts which sustained the constitutionality of a law providing a ten-hour day for women. The question has finally come before the Supreme Court of the United States, which unanimously holds that the working hours of women may be restricted for the protection of health and that the welfare of the State depends upon such restriction. It maintains that the two sexes differ in structure of body, in the functions to be performed by each, in the amount of physical strength, in the capacity for long-continued labour, particularly when done standing, in the influence of vigorous health upon the future well-being of the

race, in the self-reliance which enables one to assert full rights, and in the capacity to maintain the struggle for subsistence. This decision will have an immediate and powerful influence in promoting legislation in the States restricting the hours of labour of women and children.

Eye-glasses for School Children.

The Committee on Elementary Education of New York reports that 36,000 children in the public schools of this city are suffering from visual defects that demand correction to enable these children to profit to the full by the opportunities for study furnished to them. This is 6 per cent. of the total number in the schools. The committee recommends the organisation of centres well equipped for the examination of school children whose sight is defective and the provision of eye-glasses made to prescription; the appointment by the Department of Health of 30 ophthalmologists to examine all the pupils of the public schools referred to them; and, finally, the appointment of an advisory body consisting of five members.

Commission on Problems of Nutrition.

The University of Illinois is about to appoint a commission for the purpose of conducting experiments on the effect on the consumer of the preservatives in common use in food-stuffs, especially meats. The work will be done under the direction of Professor Grindly of the department of physiological chemistry of the University. Associated with him will be Professor Chittenden of Yale College, Professor Abel of Johns Hopkins University, and Professor Mathews of the University of Chicago. This investigation is encouraged, and in part supported, by the beef packing houses of Chicago. The commission is composed of professors of physiological chemistry of wide reputation as accurate and trustworthy authorities in their field of practical work.

Serum Treatment of Cerebro-spinal Meningitis.

The medical director of the Rockefeller Institute for Medical Research, Dr. Simon Flexner, has recently made public the experiments by which the serum was finally obtained and the results which have thus far attended its use. The meningococcus was found to have many peculiarities. Its effects on guinea-pigs were not like those on man; experiments with goats only occasionally succeeded; the lesions in monkeys resemble those in man both macroscopically and microscopically, but in monkeys there is more involvement of the central nervous system. Encouraged by the results obtained by these tests the experimenters began to immunise a horse, and after eight months this serum was tried on man. At first the dose was small, 5 cubic centimetres; later it was increased to 10 cubic centimetres and 15 cubic centimetres, and then larger doses were given. The injection was always made directly into the spinal canal. In the last epidemic of cerebro-spinal meningitis in New York there were 5000 cases, with a mortality of 70 per cent. The first trial of the new serum was in an epidemic in Ohio, where it was used in 40 cases, with 29 recoveries and 11 deaths—a mortality of 27 5 per cent. It has since been used in 17 cases in New York, with 12 recoveries and five deaths; 20 cases in Boston, with 17 recoveries and three deaths; 15 cases in Philadelphia, with nine recoveries and six deaths; three cases in Baltimore, with two recoveries and one death; 30 cases in Belfast, with 22 recoveries and eight deaths; and five cases in other places, with four recoveries and one death. The total of all reported cases up to the present time is 130 treated with the serum, of which 95 recovered and 35 died—a mortality of 27·5 per cent.

April 21st.

LONDON HOSPITAL MEDICAL COLLEGE: UNIVERSITY OF LONDON.—Mr. G. P. Mudge will continue his course of five lectures on Mendelian Inheritance on Wednesdays, May 6th and 13th at 4.30 P.M. The first lecture will deal with the Mendelian principles; Mendelian inheritance in animals and plants. The second lecture will deal with Mendelian inheritance in man in regard to both normal and pathological characters; eye-colour, brachydactyly, tylosis palmaris et plantaris, epidermolysis bullosa, curly hair, hetero-chromia of iris, diabetes insipidus, congenital stationary night-blindness (Nettleship's case), congenital cataract, musical sense, albinoism, Daltonism, insanity, and tuberculosis; the possible nature of sex-limited diseases in man, its analogous manifestation in lower animals. These lectures, which are free to all students of the University, will be given in the physiological theatre.

Obituary.

PROFESSOR LEOPOLD VON SCHRÖTTER.

ON April 22nd the medical profession of Vienna and the many foreign medical men visiting the city were greatly startled by the announcement of the tragically sudden death of Professor Leopold von Schrötter, Ritter von Kristelli. After having completed his seventieth year Professor von Schrötter, who was director of the third clinic for internal medicine in the University of Vienna, ought to have resigned this post but the Senate of the University granted him another year, the so-called honorary year of lecturing, which would have terminated next July. On the opening of the first International Congress of Rhinology and Laryngology, which was held in Vienna from April 21st to 25th, and of which he was the honorary president and the moving spirit, he delivered a magnificent address on the two founders of laryngology, Dr. Türck and Dr. Czermak, at midday, and invited about 40 of the most eminent of the foreign visitors to spend the evening at his house. With them he engaged in animated conversation until midnight when he retired. An hour later his son happening to enter the bedroom found that his father was dead. The deceased suffered from sclerosis of the coronary arteries and an attack of angina pectoris had terminated his life. He had been ailing a little for some time but no one, himself included, had felt any alarm as the symptoms were very slight. Leopold von Schrötter was a son of a man distinguished in science, Anton von Schrötter, and was a native of Gratz where he was born in 1837. At a comparatively early age he took the degree of M.D. in the University of Vienna in 1861 and became assistant to Professor Skoda whose ill-health often made it necessary that his assistant should deliver the clinical lectures. He soon showed a special interest in laryngology and became *privat-docent* for this subject in 1867. On the death of Dr. Türck, the chief laryngologist of that time, von Schrötter succeeded in convincing the authorities that laryngology was a subject of sufficient importance to deserve a special clinic. When this clinic, which had only 16 beds, was established he was made director of it and thus he was the first and only professor of clinical laryngology in Europe. He soon received the additional appointment of professor of internal medicine and in this way had two clinics under his supervision until in the year 1890 a third clinic was created for him in the General Hospital, where he had both beds for laryngological and medical patients and an out-patient department as well. The laryngological clinic of 16 beds was given to Dr. Stoerk. Professor von Schrötter was without question the pioneer of modern laryngology and its independent position is largely due to his influence. The treatment of stenosis of the larynx, the diagnosis of laryngeal paralyses, and the relations between various diseases and those of the throat were among the principal subjects at which he worked. He was also the first to perform an intra-laryngeal operation, cocaine being the anæsthetic selected. It is therefore not surprising that most of the well-known laryngologists of the present day have been his pupils. His lectures were attended by a multitude of foreign physicians and surgeons and his private practice was enormous. His fame increased when, in 1887, he was called in consultation with Sir Morell Mackenzie to the then Crown Prince Frederick of Germany. He was the founder of the Vienna Laryngological Society and was co-editor of several monthly and weekly laryngological journals. Professor von Schrötter was an energetic, quick worker; his ideas were mostly sound and he knew how to give them vivid expression. He threw himself into the movement for establishing sanatoriums for the treatment of tuberculosis and he persevered until a model institution of this kind—Alland, the first in Austria—was erected. As a physician and clinical teacher he was much esteemed alike by patients and students. The latter had a trustworthy friend in him, and in order to bring them into contact with the patients he always required his students to spend their afternoons in the wards, accompanying him on his rounds. His lectures on Diseases of the Chest were masterpieces of their kind. Heart diseases, mediastinal changes, and in recent years the use of the x rays in the examination of the chest were his favourite subjects in this department of medicine. His manner was at all times cheerful and he had an unusual power of

inspiring hope in the minds of his patients. His third clinic will most likely be divided amongst the other two clinics, as it was instituted only *ad personam*. His sudden death cast a gloom over the proceedings of the Congress of Rhinology and Laryngology and the business was suspended for an hour as a sign of mourning, a longer adjournment being considered inexpedient on account of the number of foreign visitors. A deputation from the congress was present at the funeral.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.—The deaths of the following eminent foreign medical men are announced:—Dr. Furquim Werneck, an eminent obstetrician and gynæcologist of Rio de Janeiro, aged 62 years. He represented Brazil in European medical congresses and took a very prominent part in the sixth Brazilian Congress of Medicine and Surgery held at S. Paulo. While a student Dr. Werneck took part in the military operations against Paraguay and later found his early military experience of considerable value during debates in the Federal Congress, of which he was a distinguished member.—Dr. Ludwig Karl Schmarda, emeritus professor of zoology in the University of Vienna, who if he had lived a little longer would have completed his ninetieth year. In early life he was professor of zoology in the University of Gratz but during the political troubles of 1848 acted as surgeon to the military hospitals. After this he was appointed to the chair of zoology in the University of Prague but after four or five years resigned the post and started on a long expedition for scientific observation, during which he visited New Zealand and many parts of South America. For some time after his return he seems to have been disapproved of by the authorities in consequence of his publishing, in collaboration with Professor Unger, a treatise on zoology which was branded as atheistical by the Ultramontane party but in 1862 the University of Vienna elected him to the chair of zoology, which post he filled until some 25 years ago, when he retired. The scientific world is indebted to Professor Schmarda for a number of manuals and monographs on zoological subjects and for a detailed account of his scientific travels in three volumes.—Dr. Franz Mracek, extraordinary professor of dermatology in the University of Vienna, at the age of 60 years. He was in early professional life assistant to Professor Sigmund and afterwards *Primararzt* at the Rudolf Hospital. His best-known works are a Manual of Skin Diseases with numerous plates and a monograph on Syphilis of the Heart.—Dr. Moriz Liebmann, *privat-docent* of midwifery and gynæcology in Budapest.—Dr. Franklin W. Hays, professor of medicine and of dermatology in the Medical College of Indiana, Indianopolis.—Dr. Erwin Herter of Berlin, author of numerous papers on Physiological Chemistry. He was for two years in charge of the chemical department of the Zoological Station at Naples. His age was 58 years.

Medical News.

UNIVERSITY OF OXFORD.—The following candidates have been approved at the examinations indicated:—

PRELIMINARY.

Animal Physiology.—G. H. Alington, Trinity.

Zoology.—R. G. Barnes, Christ Church; W. A. Barr, Exeter; J. H. Beattie, Corpus; C. M. Burrell, University; E. W. Carrington, Keble; J. C. Davies, New; C. Dean, Trinity; R. C. Fairbairn, Exeter; R. A. D. Gillis, St. John's; D. B. J. Hallett, University; R. S. A. Heathcote, New; H. S. Knowlton, Keble; G. A. Maling and E. E. Mather, Exeter; Hon. P. A. Methuen, New; J. C. Moulton, Magdalen; A. L. Pearce-Gould, Christ Church; T. L. Price, Keble; N. D. Pringley, Lincoln; M. O. Raven, Trinity; F. C. Reynolds, New; A. S. Robinson, Exeter; E. R. Speyer, New; G. B. Tarring, Merton; F. J. Tear, non-collegiate; T. O. Thompson, St. John's; B. H. Walker, Queen's; and W. W. Waller, New.

UNIVERSITY OF CAMBRIDGE.—The following have passed the examination in Sanitary Science:—

W. Anderson, A. W. G. Bagshawe (Caius), A. Beeley, J. M. Bernstein, J. Brunton, W. J. Corbett, W. F. Corfield, R. M. Courtauld (Pembroke), A. M. Jukes, S. J. Killen, H. C. T. Langdon (Caius), F. T. C. Linton, T. C. Lucas (Clare), J. F. Macdonald, A. Mathieson, Mabel L. Ramsay, C. D. Rankin, T. S. Ross, Sophie Seekings, E. P. Sewell (Pembroke), D. Stiell, T. Strain, T. W. Wade, and W. N. Walker.

The Linacre lecture will be delivered by Professor W. Osler, M.D. Oxon., F.R.S., on Wednesday, May 6th, at 5 P.M., in the new museums. The subject will be: Thomas Linacre, his life and works.

SOCIETY OF APOTHECARIES OF LONDON.—At examinations held recently the following candidates passed in the subjects indicated:—

Surgery.—E. M. Adam (Sections I. and II.), Charing Cross Hospital; O. C. Andrews, Birmingham; A. J. K. Brayton (Section I.), Liverpool; J. Brierley (Section I.), St. Thomas's Hospital; A. C. J. Elwin (Section II.), and F. S. Hawks (Sections I. and II.), King's College Hospital; H. E. Middlebrooke (Section I.), London Hospital; L. G. Powell (Sections I. and II.), Royal Free Hospital; J. V. Steward (Sections I. and II.), Manchester; and N. C. Wallis (Section I.), London Hospital.

Medicine.—A. J. K. Brayton (Sections I. and II.), Liverpool; W. J. G. Gayton (Section II.), London Hospital; F. S. Hawks (Section I.), King's College Hospital; J. K. A. Heim (Sections I and II.), Guy's Hospital; J. Jones, Manchester; J. M. Murray (Section I.), Royal Free Hospital; C. S. Ormsby (Section II.), St. George's Hospital and Edinburgh; P. D. Pickles (Sections I. and II.), Leeds; S. Speelman (Sections I. and II.), Amsterdam; and H. B. Waller (Section I.) London Hospital.

Forensic Medicine.—A. J. K. Brayton, Liverpool; W. C. D'Eath, Charing Cross Hospital; J. K. A. Heim, Guy's Hospital; J. Jones, Manchester; J. M. Murray, Royal Free Hospital; C. S. Ormsby, St. George's Hospital and Edinburgh; and F. H. P. Wills, St. Mary's Hospital.

The diploma of the Society was granted to the following candidates, entitling them to practise medicine, surgery, and midwifery:—A. C. J. Elwin, J. Jones, C. S. Ormsby, P. D. Pickles, L. G. Powell, S. Speelman, and J. V. Steward.

UNIVERSITY OF EDINBURGH.—The following is the official list of passes at the recent professional examinations for degrees in Medicine and Surgery:—

First Professional Examination.—Herbert F. W. Adams, G. A. Melville Anderson, Sidney H. Arthur, Madan Mohan Lal Atal, Clement C. Cafferata, Samuel B. B. Campbell (with distinction), William J. Candlish, Peter W. Carruthers, Allan L. Christie, Asher Cohen, Frank Eley Crew, James H. Cuthbert, Thomas C. Dallas, John P. Davidson, Frederick B. Dreyer, Harry Evans, Stanley Fenwick, Margaret Ferguson, John Gifford, B.A., John G. Gill, William L. Glegg, Robert A. Greenwood, John W. C. Gunn, M.A. (with distinction), Mary I. Hemingway, James A. Henderson, Herbert D. M. Imrie, William N. W. Kennedy, A. Mirza Raza Khan, Maurice B. Lawrie, Harry Lewis, George J. Linklater, Stanley J. Linzell, Joseph M'Caig, Peter M'Cowan, William Macdonald, Eric F. W. Mackenzie (with distinction), Henry M. M'Kenzie, William S. M'Laren, George G. Marshall, James Maxwell, Walter Mercer, Hugh S. Palmer, Hugh F. Penman, Francis G. Power, William A. Rankin, Archibald Romanes, M.A., William Rose, M.A., William J. Rosie, James N. M. Ross, Agnes Rothé, Mossie Rougvie, William M. W. Shepherd, Alan W. S. Sichel, B.A. (with distinction), John T. Smeall, William R. Stewart, James R. K. Sutton, Meyer Teitelmann, Garth ap Thomas, Ruby Thomson, John S. Tomb, Benjamin Weinbren, Harry Whitaker, and Arthur R. Wightman.

Second Professional Examination.—Old Regulations: Major George Bidie, I.M.S. 1892 Ordinance (three subjects): Peter Allan, Francis G. Bell, Walter Bisset, M.A., B.Sc., Uriah F. F. Brown, George R. Bruce, M.A., Gilbert Burnet, Joseph le F. C. Burrow, Walter W. Carlow, M.A., William Darlington, Wilfred J. Feltham, Annie G. Fergus, Elon L. Ferguson, John B. Ferguson, François P. Fouché, Robert W. Greatorex, Edward B. Gunson, Thomas E. Guthrie, Hugo F. G. Hall, W. R. Clayton Heslop, John Honeyford, Alfred E. Huckett, Gideon J. Joubert, Thomas D. Kennedy, David T. M. Large, John P. Litt, John M. Logie, A. Sinclair Loutit, D. Murray Lyon, Wilfrid V. Macaskie, Thomas M'Fetridge, John R. M'Gregor, William Macnaughton, Ram C. Malhotra, Seal Marshall, Daniel B. Maunsell, William A. Miller, B. Branford Morgan, Oliver A. J. N. Muriset, Harry G. G. Nelson, Pieter J. Olivier, Dora E. Paterson, Peder N. Pedersen, Stanley Pinion, Stephen H. Pugh, William D. Reid, Christopher Rogers, William A. Shafto (with distinction), Fraser M. Sinclair, John Stevenson, Claude B. Tudehope, Stephen H. Wilkinson, and Guy A. Wyon, B.Sc. New Ordinance (1907) (two subjects): Robert M. Allan, Charles J. G. Bourhill, George S. Brock, J. Falconer Brown, Ernest H. Cameron, John Drummond, Francis R. Fraser, B.A., Alexander Hood, John Hunter, Eric C. Lang, Robert S. Lawson, M.A., Emilius C. Mackay, M.A., Philip W. Maclagan, Donald J. M'Laren, Robert D. M. Macpherson, Duncan F. Macrae, Norman F. Mann, Horace M. Mills, Archibald A. Morison, Duncan M. Morison, Malcolm M. Morison, Montgomery P. Paton, William C. Paton, James F. Penman, A. Z. Phillips, Charles K. Pole, Allan H. Porter, Nicholas Purcell, Alexander W. Rattrie, Thomas C. Ritchie, William Russell, Thomas R. Sandeman, Austin N. Smith, James R. Stott, James Taylor, and John J. Tough.

Third Professional Examination.—D. C. Adam, David Aiken, R. J. Allsopp, Alexander Archibald, Fergus Armstrong, Alice E. M. Babington, T. H. Balfour, A. E. C. Beausoleil, R. A. Bell, Eveline R. Benjamin, W. M. Biden, T. C. Borthwick, F. A. J. Brodziak, G. S. Brown, A. Ninian Bruce, B.Sc., P. J. de Bruijn, W. F. Buist, O. S. Bulloch, W. L. Burgess, B. N. Burjorjee, A. W. Burton, Sarah E. Buyers, J. Argyll Campbell, John Cathcart, G. L. Cawkwell, A. D. Child, H. A. Cookson, N. A. Coward, James Crocket, Lucy E. Davies, J. K. M. Dickie, I. D. Dickson, Adelaide A. Dreaper, J. W. C. Drever, A. E. Drynan, A. M. Elliott, A. H. Elmslie, G. F. Fismer, Thomas Fraser, F. L. Gailetly, Mary M. Gardner, A. W. Gill (with distinction), T. J. Gilmore, W. E. Goss, W. T. Graham, A. G. M. Grant, R. D. Latimer Greene, S. C. Sen Gupta, A. G. Hamilton, H. F. Hamilton, R. C. Harkness, T. E. Harwood, B.A., John Henderson, G. R. Inglis, Flora Innes, G. E. King, Lina Kurz, J. H. Lawry, Harry Lipetz, W. R. Logan, H. A. V. Loots, H. F. Lumsden, D. C. Macaskill, M.A., J. C. MacCallum, D. R. C. Maclagan, G. E. G. Mackay, J. M. M'Keand, Donald M'Phail, R. C. Macqueen, John Malloch, T. H. R. Mathewson, William Messer, E. L. Middleton (with distinction), A. F. W. Millar, G. M. Miller, A. M. Minford, L. M. V. Mitchell, John Montgomery, S. P. Moore, William Morrison, J. A. Mortimer,

J. M. Moyes, C. C. Murray, R. M. Nicholson, F. H. Noronha, James Oag, M.A., John Renwick, D. G. Robertson (with distinction), W. S. Robertson, D. M. Ross, William Ross, M.A., R. P. Rosser, A. C. Russell, C. M. Schaffter, Jessie A. Scott, J. J. M. Shaw, M.A., J. C. Simpson, Kerr Simpson, G. H. Sinclair, J. D. Skinner, H. F. Smith, B.A., J. G. Smyth, James Sprent, B.Sc., William Stevenson, William Stewart, C. P. A. Stranaghan, James Swan, A. L. Taylor, H. W. Teague, J. A. Thompson, L. R. Thomson, W. S. Thomson, N. J. Watt, J. P. Whetter, Seymour Williams, John Wilson, J. D. Wilson (with distinction), and Margaret C. Young.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS OF EDINBURGH AND FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.—At the recent examinations of the board of the Royal Colleges of Physicians and Surgeons of Edinburgh and Faculty of Physicians and Surgeons of Glasgow the following candidates passed their respective examinations:—

FIVE YEARS' COURSE.

First Examination.—Arthur Lloyd Edwards, Penygroes; James Alfred Frost, Glenbrook; George Anthony Macvea, Whithorn; Cyril Scotter Owen, Hale, Cheshire; William Shorten, Timoleague; and Valentine Hutchinson Wardle, Bishop Auckland.

Second Examination.—John Paxton, Norham-on-Tweed; and Hugh Francis Williams, Llanfyllin.

Third Examination.—Conrad James Arthur, Grenada, W.I.; Herbert Christian Bankole-Bright, West Africa; Denis Cogan, Cork; James Denis Collins, Cork; John Alexander Irwin, Donegal; Angus Cameron Livingston, Glasgow; Patrick James Taaffe, Liverpool; and Frank Walter White, Gosforth.

Final Examination.—Ishwar Das, Punjab; Charles James Campbell Faill, Edinburgh; William Richard Griffith, Bettws Abele; Maurice Edward Kayton, Bagdad; James William Muir Hunter, Nottingham; Les Singarayen Machado, Ceylon; John Moncrieff Muir, Kilmarnock; Manec B. Patel, Bombay; Sécossène Piarroux, Mauritius; Patrick Reid, Carlow; and Bildey Singh, Lahore.

FOREIGN UNIVERSITY INTELLIGENCE.—*Berlin:* Dr. Georg Lockemann of Leipsic has been appointed to the charge of the Chemical Department of the Institute for Infectious Diseases in succession to Dr. Proskauer.—*Breslau:* Dr. Danielsen has been appointed *Oberarzt* of the Surgical Clinic in succession to Professor Anschutz who goes to Kiel.—*Copenhagen:* Dr. Hartmann has been recognised as *privat-docent* of Gynæcology.—*Greifswald:* Dr. W. Lange, of the aural department of the Charité, Berlin, has been appointed Extraordinary Professor of Otology and Director of the Aural Policlinic, in succession to Dr. Wittmaack, who has gone to Jena.—*Halle:* Dr. Winternitz and Dr. Frese, *privat-docenten* of Medicine, have been granted the title of Professor.—*Lemberg:* Dr. E. Biernacki, *privat-docent* of Experimental Pathology, has been granted the title of Extraordinary Professor.

FAR EASTERN ASSOCIATION OF TROPICAL MEDICINE.—A conference of medical men practising in the Far East was held in Manila on Feb. 27th to consider the advisability of establishing a society to further the knowledge of tropical medicine and to promote friendly international intercourse among those whose medical or scientific duties and interests bring them into close contact with the natives of these regions. The following gentlemen took part in the conference: Dr. N. Black (Singapore), Dr. F. W. Clark (Hong-Kong), Dr. Cheng (Canton), Dr. Dudley (Manila), Dr. R. T. Edwards (Siam), Dr. H. Fraser (Federated Malay States), Dr. Paul C. Freer (Manila), Dr. Garrison (United States Navy), Dr. Gurney (Philippine Constabulary), Dr. Hayward Hays (Siamese Navy), Dr. R. D. Keith (Singapore), Dr. Kitajima (Japan), Dr. J. R. McDill (Manila), Dr. H. T. Marshall (Manila), Dr. W. E. Musgrave (Manila), Dr. Nichols (United States Army), Sir Allan Perry (Ceylon), Dr. Pond (Manila), Captain Ryley, R.A.M.C. (Hong-Kong), Dr. Saleeby (Manila), Dr. Tee Han Kee (Manila), and Dr. J. J. Vassal (Annam). It was unanimously decided to establish such a society and the articles of association and by-laws were duly adopted. The council of the association will consist of a representative from each component Government and a representative from each component medical organisation, and it is hoped that during the ensuing year the Governments of Japan, China, Hong-Kong, the Philippine Islands, Tonkin, Annam, Singapore, the Federated Malay States, Siam, Borneo, Java, Ceylon, and other Far Eastern States and Colonies will nominate representatives, and that each medical organisation or branch of such organisation will similarly nominate a representative to serve on the council of the association. It was further decided to organise a conference every two years, to be held in one or another of the above countries, the first conference to take place in Manila early in the year 1910, and Dr. Paul C. Freer, director of the Bureau of Science of the Philippine Islands, was elected as the first President of the association. At these conferences papers will be read, pathological and other scientific exhibits displayed, and the medical, sanitary, and other allied institutions and services of the country in which the meeting is held will be thrown open, so far as may be possible, and demonstrated to those attending the meeting. Each component country will be represented for business purposes by a secretary-treasurer and there will be a general secretary-treasurer for the association. Dr. Francis W. Clark, medical officer of health of the colony of Hong-Kong, was elected the first general secretary-treasurer. The subscription was fixed at 10*s.* a year. Dr. Clark's address for the next few months will be the Royal Societies Club, St. James's-street, London, S.W.

DONATIONS AND BEQUESTS.—By the will of the late Mr. Stewart Clark of Linlithgow the following sums are left to charities: £5000 to the Royal Alexandra Infirmary, Paisley; £2000 to the Annie Clark Fund for Incurables, Paisley, and the Annie Clark Fund for Incurables, Larne; £1000 to the Gleniffer Home for Incurables, Paisley; £1000 to the Royal Victoria Eye Infirmary, Paisley; and £1000 to the Paisley Convalescent Home, West Kilbride.—By the will of Mr. Stephen Hamilton Thompson of Edgbaston, who left estate valued at £45,364 gross, with net personalty £23,712, the residue of his estate will be equally divided between the Birmingham and Midland Throat and Ear Hospital, the Queen's Hospital, Birmingham, the Royal Institution for the Instruction of Deaf and Dumb Children, and the General Institution for the Blind, Birmingham. But if each of these institutions would receive more than £2000 such excess is to be distributed by his trustees among such charitable institutions as they think best.—The late Mrs. F. Yarde of Exeter has bequeathed £1000 to the funds of the Royal Devon and Exeter Hospital, Exeter.

EVELINA HOSPITAL FOR SICK CHILDREN.—Presiding at the annual court of governors on April 22nd, Sir W. P. Treloar, Bart., in moving the adoption of the report, said it was a tribute to the work of the hospital that the trustees of King Edward's Hospital Fund had made a grant of £250 during the year, as against £100 in the previous year, and the authorities of the Fund had further shown their appreciation by making substantial grants to the new building. Moreover, the grant from the Hospital Sunday Fund had been increased from £180 to £270. In the course of the year a new wing had been opened which was now in full operation. Its total cost was £14,000. Many children were sent to convalescent homes at an annual cost of about £300, and in this connexion he hoped that the home for crippled children which he was engaged in establishing at Alton, and which he hoped would be opened in June or July, would be able to afford accommodation to patients of the Evelina and other such hospitals who needed medical treatment in the country. The report was adopted.

CORBRIDGE HOSPITAL.—Corbridge is a pretty residential village of some 2000 to 3000 inhabitants, situated on the banks of the Tyne, 17 miles west of Newcastle on the Carlisle railway line. Corbridge is the centre of a very large agricultural district and though now only a village, and in many respects much less important than the neighbouring market town of Hexham, it has in the past taken a very important share in the history of this part of the country, as is evidenced by the fact that immediately adjacent to the modern village are the remains of one of the largest Roman settlements in Britain. The village and district have for some years enjoyed the privilege of the use of a small cottage hospital erected in memory of the late Mr. H. S. Edwards of Byethorn by members of his family. The hospital has in the past been managed by Miss Edwards, with the assistance of a committee of ladies. Rumours of disagreement among the members of the committee have been circulated for some little time. The committee was lately strengthened by the addition of some male members but without avail. The differences of opinion in the committee became more acute and finally the whole of the members resigned, with the result that the hospital was closed some three months ago. Since then a new committee has been formed and various proposals have been made, including a suggestion that a piece of land should be acquired and a new hospital erected. It would seem improbable that this latter suggestion will meet with the approval of those who contribute to the maintenance of the hospital, seeing that there already exists a building which was

specially designed for the purpose and which is further admirably situated and in close proximity to the residences of all the medical men. So far no solution of the difficulty has been found, though it cannot be believed but that one agreeable to all parties exists. It is sincerely to be regretted that a gift given in circumstances such as the use of this hospital was given and, moreover, given for the use of those who are not in a position to provide all that may be necessary to insure their recovery from serious illness is threatened with withdrawal simply because of the existence of some little difficulty which if approached in the true spirit could be got over immediately. Arbitration has been eminently successful quite recently in far more difficult and far more vital matters.

ROYAL SOCIETY OF MEDICINE (ELECTRO-THERAPEUTIC SECTION).—The ordinary monthly meeting of the section will be held in the rooms of the Royal Philosophical Society, 207, Bath-street, Glasgow, on Friday, May 22nd, at 8.30 P.M. Mr. William Deane Butcher, President of the Section, will occupy the chair. The following papers will be read: Interrupted Currents for Electrical Testing and Treatment, by Dr. H. Lewis Jones; Some Reflections Based upon the Work done in the Electrical Department of the Royal Infirmary, Edinburgh, by Dr. Dawson Turner; and Ionic Medication in the Treatment of Some Obstinate Cases of Pelvic Disease in Women, by Dr. Samuel Sloan. An exhibition of electrical apparatus will be held in the same place from 3 P.M. to 10.30 P.M. Light refreshments will be provided free of cost to visitors. The meeting and exhibition will be open to all duly qualified medical practitioners. As the attendance in the evening will probably be considerable it is requested that those who may find it convenient to visit the exhibition in the afternoon will do so.

PRESENTATIONS TO MEDICAL PRACTITIONERS.—On April 15th Mr. A. H. Evans, M.R.C.S. Eng., L.S.A., was presented with a handsomely chased and inscribed silver cake-dish on behalf of over 100 patients of the Sutton Coldfield Medical Dispensary. Mr. Evans is retiring from active work in connexion with the institution.—On April 24th at a public meeting at Gilfach Goch, South Wales, Mr. David Naunton Morgan, F.R.C.S. Irel., L.R.C.P. Lond., was presented with an oil painting by Mr. J. M. Hemy and a grand piano was given to Mrs. Morgan. Recently the Fellowship of the Royal College of Surgeons has been conferred upon Mr. Morgan, and this was taken as an opportunity for making the presentation in order to show the respect and esteem felt for him by the residents of the district.—At St. Columb (Cornwall) on April 18th Mr. John C. Mackay, M.D. St. And., L.R.C.P., L.R.C.S. Edin., J.P., was presented with a silver tea-tray, suitably inscribed, a silver tea service, and a silver rose-bowl. The present was accompanied with a bound volume containing an illuminated address and the signatures of 381 subscribers. The presentation was made by Mr. A. C. Willyams, J.P., on behalf of the subscribers, as a mark of respect and esteem for Dr. Mackay who after practising at St. Columb for more than 25 years has been obliged, owing to failing health, to relinquish the active work of his profession.

THE PUBLIC PURSE AND DEFECTIVE SCHOOL CHILDREN.—The Board of Education in a letter to the West Sussex Education Committee has sanctioned the spending of public money to meet the cost of treating children in elementary schools who are suffering from physical defects. The Board was appealed to owing to the alarming state of affairs which has arisen from the inspection of children at schools in the Horsham district of Sussex, where of 1315 children examined no fewer than 40 per cent. were found defective, and nearly one-half of these required an operation either for enlarged tonsils or adenoids. At the meeting of the Horsham school managers on April 15th it was stated that in the town of Horsham alone there were 60 cases of adenoids urgently requiring operations, 54 cases being very serious indeed. The difficulty in dealing with so many children can be seen at once, the more so as in the majority of the cases the necessary operations cannot be performed at the parents' homes. But the difficulty has been surmounted, thanks to the sanction of the Board of Education and the loan of a cottage by one who is interested in the work. This cottage will be the temporary hospital and the nurses and necessaries will be supplied from the cottage hospital, the education authority subscribing to the cottage hospital such a sum as the hospital committee thinks appropriate. This arrangement, it was stated, entirely met with the approval of the authorities at Whitehall, but education authorities will have to keep a close watch upon the use of the public purse in this matter or they will be greatly imposed upon by parents. Every care must be taken to see that the parental obligation is insisted upon wherever possible, or parents will be found accepting free medical advice and help when really they are in a position to pay for it, or at least to pay something towards it. The serious extent to which this new call upon the public purse may develop is shown by the very large number of defective children in a healthy rural district. What of the cities and large urban areas?

MEMORIAL TO THE LATE MR. WILLIAM VAN PRAAGH.—The services to the deaf and dumb rendered by the late Mr. William Van Praagh have been acknowledged by the association for their oral instruction. Mr. Van Praagh, who died last year, was director of the school and training college connected with it for 37 years and was a leading exponent of the association's excellent method. A mural tablet in his memory was unveiled on April 27th at the school of the association by the Rev. C. H. Parey, acting on behalf of Mr. Leopold de Rothschild. There were over 100 subscribers to the memorial.

MEDICAL MAGISTRATES.—The names of Mr. Harry Davis, senior, M.D. St. And., M.R.C.S. Eng., L.R.C.P. Lond., L.S.A., of Callington; Mr. John C. Mackay, M.D. St. And., L.R.C.P., L.R.C.S. Edin., of St. Columb; and Mr. Robert Garven Nesbitt, L.R.C.P., L.R.C.S. Irel., of St. Just, have been placed on the commission of the peace for the county of Cornwall. Mr. Henry Gervis, M.B., B.C. Cantab., M.R.C.S. Eng., L.R.C.P. Lond., has been placed on the commission of the peace for Brighton. Dr. Gervis filled the mayoral chair in 1906–07 and is at the present time the deputy mayor.

MEDICAL SICKNESS AND ACCIDENT SOCIETY.—The usual monthly meeting of the executive committee of this society was held at 6, Catherine-street, Strand, London, W.C., on April 15th. There were present Dr. F. de Havilland-Hall (in the chair), Dr. W. Knowsley Sibley, Mr. F. S. Edwards, Mr. J. Brindley James, Mr. J. F. Colyer, Dr. F. S. Palmer, Dr. St. Clair B. Shadwell, Dr. M. Greenwood, Mr. Edward Bartlett, and Dr. J. B. Ball. The amount of sickness pay disbursed by the society in the first three months of this year has been somewhat augmented by the epidemic of influenza, but the number of claims from this source now being received is not great and the illnesses are for the most part of short duration. The number of new members obtained this year is larger than in any previous similar period and has so far beaten the record figures of last year. The annual report to be presented to the members on May 21st will show that during the year 1907 the society has largely grown, both in members and in financial strength. Prospectuses and all further particulars can be obtained on application to Mr. F. Addiscott, secretary, Medical Sickness and Accident Society, 33, Chancery-lane, London, W.C.

TRINITY COLLEGE, DUBLIN: POST-GRADUATE CLASSES.—Trinity College has now issued a complete syllabus of post-graduate classes in connexion with the medical school for 1908. In addition to the summer course held in the month of June it has been decided to hold an autumn course which will begin on Sept. 21st and end on Oct. 10th. The subjects and lecturers respectively chosen are:—Medicine: Dr. Henry T. Bewley and Dr. A. R. Parsons. Surgery: Mr. Thomas E. Gordon and Professor Edward H. Taylor. Gynæcology: Mr. E. Hastings Tweedy. Diseases of the Eye: Sir Henry R. Swanzy. Diseases of the Throat, Nose, and Ear: Mr. Robert H. Woods. Diseases of the Skin: Dr. Wallace Beatty. Pathology: Dr. Alexander O'Sullivan. Anatomy: Professor A. Francis Dixon. Physiology: Professor W. H. Thompson. X Ray work: Dr. William S. Haughton. Cystoscopy: Mr. K. E. L. G. Gunn. From the time table it will be seen that work will begin at 8.30 A.M. and will be continued through the day, with an interval for lunch, till 5.30 P.M. Through the kindness of the Provost it will be possible for a certain number of the class to reside in college rooms and to dine on commons at a moderate cost. This opportunity of pleasant social intercourse after the day's work is done has been highly prized in the past. The number of rooms available, however, is limited and consequently early application for them is desirable. Further details will be found in our advertising columns in a recent issue and a complete syllabus can be obtained from the honorary secretary, 27, Lower Fitzwilliam-street, Dublin.

Parliamentary Intelligence.

NOTES ON CURRENT TOPICS.

The Death of Sir Henry Campbell-Bannerman.

PROFOUND regret is felt in Parliamentary circles at the death of the late Prime Minister, Sir HENRY CAMPBELL-BANNERMAN, which came so close on his resignation of office. Expression was given to this feeling on Monday, the day of the memorial service in Westminster Abbey, curiously enough also the date on which the House of Commons reassembled after the Easter recess. All controversial business was laid aside for the day as a mark of respect to the dead statesman. In dignified and eloquent language the new Prime Minister, Mr. ASQUITH, paid a fitting tribute to his predecessor, to his capacity in affairs of State, to his urbanity and charm of manner, his kindliness of disposition, his power of leadership. Mr. AKERS-DOUGLAS, in the absence of Mr. BALFOUR, gave expression to the generous sentiments of the Opposition. Mr. A. HENDERSON spoke for the Labour Party, Mr. T. P. O'CONNOR for the Nationalists, and Sir ALFRED THOMAS for the Welsh Members. The House then adjourned.

New-born Children (Protection) Bill.

Lord ROBERT CECIL has introduced into the House of Commons a Bill "to provide for the better protection of the lives of new-born children."

Scottish Vital Statistics.

During the Easter recess the report of the Registrar-General on the births, deaths, and marriages in Scotland during 1907 was published. The population of the country was estimated at 4,776,033. The birth-rate for the year, 26·97, is the lowest yet recorded in Scotland. In 1906 it was 27·9 per 1000 of the estimated population. The death-rate for the year was 16·18 per 1000.

HOUSE OF COMMONS.

TUESDAY, APRIL 28TH.

Medical Women as Medical Referees.

Mr. STANGER asked the Secretary of State for the Home Department whether he could give any estimate of the number of female workpeople, including domestic servants, who, in the United Kingdom, came under the provisions of the Workmen's Compensation Act, 1906; and whether he had placed, or was intending to place, any duly qualified female medical practitioners on the lists of persons to act as medical referees or medical assessors under that Act, so that female workpeople making claims under the Act might, where the county court judge allowed it, have the services of a female medical practitioner.—Mr. GLADSTONE replied: It is estimated that the number of female employees who come within the Act is approximately three millions. The question of appointing medical women to act as medical referees in cases where women are concerned is one of much administrative difficulty. It has been carefully considered, but I have not seen my way to make any such appointments at present. There were only two references to medical referees in women's cases during the year 1907. I should always be ready to consider an application by a county court judge for the *ad hoc* appointment of a medical woman to act as referee in a particular case where the circumstances were exceptional.

The Dairies, Cowsheds, and Milkshops (Ireland) Order.

Mr. HUGH BARRIE asked the Chief Secretary to the Lord Lieutenant of Ireland whether, having regard to the fact that the Dairies, Cowsheds, and Milkshops (Ireland) Order, 1908, was compulsory, and that its provisions were for the purpose of improving the general health of the community and assisting to stamp out the disease of tuberculosis, he would urge upon the Government the necessity of contributing one-half of the cost of giving effect to the Order.—Mr. BIRRELL sent the following written reply: The answer is in the negative. There is no reason why the Government should contribute one-half of the cost of giving effect to the Order in question, that would not equally apply to the case of every Order which aims at improving the general health of the community.

A Standard for Food Preservatives.

Mr. FIELD asked the President of the Local Government Board whether, owing to the absence of any standard for preservatives in food and the consequent confusion prevailing in the public mind, he would be prepared to incorporate in the regulations he was now drafting under the powers conferred upon him by the Public Health (Regulation of Foods) Act, 1907, a clause fixing such standard, and thereby give practical effect to the recommendations of the Departmental Committee of 1900.—Mr. BURNS (by written answer) replied: In view of the importance of public health and trade interests concerned regulations dealing with preservatives in food generally could not be made without considerable preliminary inquiry or without supplementing the investigations of the Departmental Committee in various directions. In these circumstances it has not been found practicable to include regulations on this subject in the series now in preparation, but I have not lost sight of the matter and have already directed inquiries to be made with regard to the present position of preservatives in certain foodstuffs.

WEDNESDAY, APRIL 29TH.

The Royal College of Surgeons in Ireland.

Sir WILLIAM COLLINS asked the Chief Secretary to the Lord Lieutenant of Ireland whether he had considered a memorial from the Royal College of Surgeons in Ireland praying that that body might become a constituent college in the new university to be established in Dublin; and whether he would be prepared to advise the inclusion of that College within the university.—Mr. T. W. RUSSELL (on behalf of Mr. BIRRELL) replied: It is not intended to make the Royal College of Surgeons in Ireland a constituent College of the proposed new university in Dublin.

Sir WILLIAM COLLINS asked whether further representations on the subject would be considered.—Mr. T. W. RUSSELL replied that he had no doubt that any representations coming from the College would receive due consideration.

BOOKS, ETC., RECEIVED.

APPLETON, SIDNEY, London.

Medical Gynecology. By Howard A. Kelly, A.B., M.D., LL.D., F.R.C.S. (Hon. Edinb.), Professor of Gynecological Surgery in the Johns Hopkins University, and Gynecologist to the Johns Hopkins Hospital, Baltimore. Price 25*s.* net.

ARNOLD, EDWARD, 41 and 43, Maddox-street, London, W.

Movable Kidney, its Pathology, Symptoms, and Treatment. By Harold W. Wilson, M.B., B.S. Lond., F.R.C.S. Eng., Demonstrator of Anatomy and Chief Assistant in the Surgical Outpatient Department, St. Bartholomew's Hospital; late Luther Holden Research Scholar; and C. M. Hinds Howell, M.A., M.B., B.Ch. Oxon., M.R.C.P. Lond., Junior Demonstrator of Physiology, late Casualty Physician, St. Bartholomew's Hospital; Pathologist, late Registrar, to National Hospital for the Paralysed and Epileptic. Price 4*s.* 6*d.* net.

BAILLIÈRE, TINDALL, AND COX, 8, Henrietta-street, Covent-garden, London, W.C.

Aids to Ophthalmology. By N. Bishop Harman, M.A., M.B. Cantab., F.R.C.S. Eng., Ophthalmic Surgeon to the Belgrave Hospital for Children; Chief Clinical Assistant, Royal London Ophthalmic Hospital, Moorfields; Senior Ophthalmic Assistant, the Middlesex Hospital. Fourth edition. Price, paper, 2*s.*; cloth, 2*s.* 6*d.* net.

Clinical Lectures on the Surgical Diseases of the Urinary Organs. By P. J. Frever, M.A., M.D., M.Ch., Surgeon to King Edward VII.'s Hospital for Officers, and to St. Peter's Hospital; Consulting Surgeon to Queen Alexandra's Military Hospital; late Examiner in Surgery at the Durham University; Lieut.-Colonel, Indian Medical Service (retd.). Price 12*s.* 6*d.* net.

BLACK, ADAM AND CHARLES, Soho-square, London.

Home Nursing and Hygiene. By Florence Hufton-Windust (Diplomée), late Senior Lecturer on Home Nursing, &c., for the Surrey County Council; late Hospital Sister and Superintendent of Nurses. Price 1*s.* net.

Cancer: Relief of Pain and Possible Cure. By Skene Keith, M.B., F.R.C.S. Ed., and George B. Keith, M.B., C.M. Price 2*s.* 6*d.* net.

CHURCHILL, J. AND A., 7, Great Marlborough-street, London, W.

Hernia, its Cause and Treatment. By R. W. Murray, F.R.C.S., Surgeon, David Lewis Northern Hospital, Liverpool; late Surgeon, Liverpool Infirmary for Children. Price 4*s.* 6*d.* net.

FISCHER, GUSTAV, Jena.

Allgemeine Chirurgie in 50 Vorlesungen. Kurzgefasstes Lehrbuch für Aerzte und Studierende. Von Prof. Dr. Edmund Leser, Halle a.S. Zweite umgearbeitete Auflage. Price M.18; bound, M.20.

Beiträge zur Pathologie des Stoffwechsels bei Psychosen. Erster Teil: Die progressive Paralyse. (Aus der Universitäts-Nervenklinik in Halle a.S. Direktor: Geh. Med.-Rat Prof. Dr. Anton.) Von Dr. Max Kauffmann, Privatdozent für Psychiatrie und Neurologie an der Universität Halle a.S. Price M.6.

GRIFFIN, CHARLES, AND COMPANY, LIMITED, Exeter-street, Strand, London, W.C.

Infancy and Infant-rearing: An Introductory Manual. By John Benjamin Hellier, M.D. Lond., M.R.C.S. Eng., Professor of Obstetrics in the University of Leeds; Honorary Obstetric Physician to the General Infirmary at Leeds; Consulting Physician to the Leeds Maternity Hospital; Examiner appointed by the Central Midwives Board. Second edition, revised. Price 3*s.* 6*d.*

Tropical Medicine, Hygiene, and Parasitology. A Handbook for Practitioners and Students. By Gilbert E. Brooke, M.A. Cantab., L.R.C.P. Edin., D.P.H., Port Health Officer, Singapore. Price 12*s.* 6*d.* net.

HAZELL, WATSON, AND VINEY, LIMITED, 52, Long Acre, London, W.C.

Mediterranean Winter Resorts. By Eustace Reynolds-Ball, F.R.G.S. Vol. II., North Africa and Mediterranean Islands. Sixth edition, revised, enlarged, and in part rewritten. Price 3*s.* 6*d.*

HIRSCHWALD'SCHE BUCHHANDLUNG, Under den Linden, 68, Berlin, N.W.

Die Grundlaute der Menschlichen Sprache und ein Universalalphabet. Von Leo Morochowetz, o.Professor der Physiologie und Direktor des physiologischen Instituts der K. Universität zu Moskau. Price M.2.

INSTITUTE OF CHEMISTRY OF GREAT BRITAIN AND IRELAND, 30, Bloomsbury-square, London, W.C.

A List of Official Chemical Appointments. Compiled by Direction of the Council of the Institute of Chemistry and under the Supervision of the Proceedings Committee. By Richard B. Pilcher, Fellow of the Chartered Institute of Secretaries, Registrar and Secretary of the Institute of Chemistry. Second edition, revised and enlarged. Price 2*s.* net; post free, 2*s.* 3*d.*

J. B. LIPPINCOTT COMPANY, Philadelphia and London.

Treatment of Internal Diseases. For Physicians and Students. By Dr. Norbert Ortner of the University of Vienna. Edited by Nathaniel Bowditch Potter, M.D., Visiting Physician to the New York City Hospital, to the French Hospital, and to the Hospital for Ruptured and Crippled; Instructor in Medicine, Columbia University. Translated by Frederic H. Bartlett, M.D., from the Fourth German Edition. Price 21*s.* net.

JOHN BALE, SONS, AND DANIELSSON, LIMITED, 83-91, Great Titchfield-street, London, W.

Heredity, Variation, and Genius. With Essay on Shakspeare: "Testimonied in his own Bringingsforth." An Address on Medicine: Present and Prospective. By Henry Maudsley, M.D. Price 5s. net.

KEGAN PAUL, TRENCH, TRÜBNER, AND CO., LIMITED, Dryden House, 43, Gerrard-street, Soho, London, W.

Life of Richard Wagner. By Wm. Ashton Ellis. Vol. VI. Price 16s. net.

LONGMANS, GREEN, AND CO., 39, Paternoster-row, London, E.C., and New York, Bombay, and Calcutta.

Land Reform. Occupying Ownership, Peasant Proprietary and Rural Education. By the Right Hon. Jesse Collings, J.P., M.P., President of the Rural Labourers' League, Life Member of the Société des Agriculteurs de France. New and popular edition. Price 2s. 6d. net.

MACLEHOSE, JAMES, AND SONS, 61, St. Vincent-street, Glasgow.

The Vermiform Appendix and its Diseases. By Duncan Macartney, M.A., M.D., Surgeon to the Glasgow Cancer Hospital; Senior Assistant Surgeon to the Western Infirmary of Glasgow; late Examiner in Surgery to the University of St. Andrews. Price 3s. 6d. net.

MACMILLAN AND CO., LIMITED, St. Martin's-street, London.

Confessio Medici. By the Writer of "The Young People." Price not stated.

MILLER, CHARLES C., 70, State-street, Chicago.

Cosmetic Surgery. The Correction of Featural Imperfections. By Charles C. Miller, M.D. Second edition, enlarged. Price $1.50.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, such information for gratuitous publication.*

BENSON, CHRISTOPHER RICHMOND, M.R.C.S., L.S.A., has been appointed Medical Officer for the Bratton Clovelly District by the Okehampton (Devon) Board of Guardians.

MILL, G. ROBERTSON, M.D. Edin., has been appointed Honorary Medical Officer to the Birkenhead Maternity Hospital.

REESE, DAVID WILLIAM, L.R.C.P. & S. Edin., L.F.P.S. Glasg., has been appointed Medical Officer of Health by the Warmley (Gloucestershire) Rural District Council.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

ARMY MEDICAL SERVICE.—Thirty Commissions.

BENENDEN SANATORIUM.—Medical Superintendent. Salary £250 per annum, with board, lodging, and attendance.

BLOOMSBURY DISPENSARY.—Physician. Salary 100 guineas.

BRIDGEND, GLAMORGAN COUNTY ASYLUM.—Junior Assistant Medical Officer. Salary £150 per annum, with board, apartments, attendance, and washing.

BRISTOL GENERAL HOSPITAL.—Assistant House Physician. Salary £60, with board, residence, &c.

CARDIFF INFIRMARY.—House Physician for six months. Salary £30, with board, residence, and laundry.

CARLOW DISTRICT ASYLUM.—Resident Medical Superintendent. Salary £350 per annum and allowances.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Physician to Out-patients. Also Clinical Assistant.

CLINICAL RESEARCH ASSOCIATION.—Assistant Director of the Laboratory. Salary £250 per annum.

DERBYSHIRE ROYAL INFIRMARY.—House Surgeon. Salary £100 per annum, with apartments, board, &c.

DREADNOUGHT HOSPITAL, Greenwich.—Assistant Physician; also Assistant Physician or Surgeon for Diseases of the Throat, Nose, and Ear.

DUMFRIES, CRICHTON ROYAL INSTITUTION.—Two Resident Clinical Physicians. Salary at rate of 50 guineas per annum, with board, rooms, and laundry.

FERMANAGH COUNTY HOSPITAL, Enniskillen.—House Surgeon.

GUILDFORD, ROYAL SURREY COUNTY HOSPITAL.—House Surgeon. Salary £100, with board, residence, and laundry.

HÔPITAL FRANÇAIS, 172, Shaftesbury-avenue, W.C.—Junior Resident Medical Officer, unmarried, for six months. Salary £50 per annum, with full board.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Resident House Physicians for six months. Salary £25.

HUDDERSFIELD INFIRMARY.—Junior House Surgeon. Salary £80 per annum, with board, residence, and washing.

HUDDERSFIELD LOCAL EDUCATION AUTHORITY.—School Medical Officer. Salary £300 per annum.

IPSWICH, EAST SUFFOLK AND IPSWICH HOSPITAL.—Third House Surgeon. Salary £50 per annum.

KETTERING AND DISTRICT GENERAL HOSPITAL.—Resident Medical Officer, unmarried. Salary £80 per annum, with board, residence, &c.

KING EDWARD VII. SANATORIUM, Midhurst, Sussex.—Senior Assistant Medical Officer, unmarried. Salary £150 per annum, with board, lodging, and attendance.

LANCASTER, COUNTY LUNATIC ASYLUM.—Assistant Medical Officer for the summer months. Salary 3 guineas per week, with board, lodging, and washing.

LEICESTER POOR-LAW INFIRMARY.—Second Resident Assistant Medical Officer. Salary £120 per annum, with rations, apartments, and washing.

LINCOLN GENERAL DISPENSARY.—Resident Junior House Surgeon, unmarried. Salary £175 per annum, with apartments, fire, and gas provided.

LONDON COUNTY ASYLUM, Horton, Epsom, Surrey.—Assistant Medical Officer, unmarried. Salary £150 per annum, with board, apartments, and washing.

LONDON HOSPITAL, Whitechapel.—One Medical and Two Surgical Registrars. Salary in each case £100 per annum.

MACCLESFIELD GENERAL INFIRMARY.—Junior House Surgeon. Salary £60 per annum, with board, residence, and washing.

MANCHESTER CORPORATION TRAMWAYS.—Medical Officer.

MILLER GENERAL HOSPITAL FOR SOUTH-EAST LONDON, Greenwich-road, S.E.—House Surgeon for six months. Salary at rate of £80 per annum, with board, attendance, and washing. Also Honorary District Medical Officer.

NEWCASTLE-ON-TYNE, HOSPITAL FOR SICK CHILDREN.—Assistant Honorary Surgeon.

NORWICH, NORFOLK AND NORWICH HOSPITAL.—House Surgeon, unmarried. Salary £80 per annum, with board, lodging, and washing. Also Assistant House Surgeon for six months. Salary £20, with board, lodging, and washing.

NOTTINGHAM CITY ASYLUM.—Second Assistant Medical Officer, unmarried. Salary £150 per annum, with board, apartments, &c.

NOTTINGHAM GENERAL HOSPITAL.—Assistant House Physician, also Assistant House Surgeon. Salary in each case £60 per annum, with board, lodging, and washing. Also Locum Tenens for three and a half months. Salary £45, with board, lodging, and washing.

PLYMOUTH, SOUTH DEVON AND EAST CORNWALL HOSPITAL.—House Physician for six months, renewable. Salary £75 per annum, with board, residence, and washing.

ROYAL EAR HOSPITAL, Dean-street, Soho.—House Surgeon. Salary £40 per annum.

ROYAL NAVY, MEDICAL DEPARTMENT.—Examination for not less than 15 Commissions.

ST. GEORGE'S HOSPITAL, S.W.—Resident Anæsthetist. Salary £50 per annum, with board and residence.

ST. GILES', CAMBERWELL, INFIRMARY AND WORKHOUSE.—Assistant Medical Officer. Salary £140 per annum, with apartments, board, and washing.

SAMARITAN FREE HOSPITAL FOR WOMEN, Marylebone-road, N.W.—Clinical Assistants.

SHEFFIELD UNION HOSPITAL, Fir Vale.—Resident Assistant Medical Officer, unmarried. Salary £100 per annum, with apartments, rations, &c.

SOCIETY OF APOTHECARIES OF LONDON.—Examiners in Medicine and Surgery.

STONE, NEAR AYLESBURY, BUCKS COUNTY LUNATIC ASYLUM.—Assistant Medical Officer. Salary £150 per annum, with board and apartments.

SUNDERLAND INFIRMARY.—House Surgeon. Salary £80 per annum, with board, residence, and washing.

SWANSEA GENERAL AND EYE HOSPITAL.—House Surgeon. Salary £75 per annum. Also House Physician. Salary £75 per annum.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—Second House Physician. Salary £80 per annum, with board, lodging, and laundry.

Births, Marriages, and Deaths.

BIRTHS.

BROWNLIE.—On April 24th, at Drayton House, Redcar, the wife of A. Brownlie, M.D., of a son.

HUBERT.—On April 23rd, at Rosehill, Billingshurst, Sussex, the wife of W. A. Hubert, M.R.C.S. Eng., L.R.C.P. Lond., of a son.

TRIST.—On April 22nd, at Crest House, Putney Bridge-road, S.W., the wife of John Ronald Rigden Trist, M.R.C.S., L.R.C.P., of a son.

MARRIAGES.

FORSYTH—LIVERMORE.—On April 22nd, at the parish church, Neston, Cheshire, Charles Forsyth, F.R.C.S. Edin., and J.P. of Hong-Kong, to Dorothy Mary, daughter of Mr. and Mrs. Martin Livermore, of Turzum, Neston.

HIGGINS—BRANDON.—On April 18th, at St. Paul's Church, Carlisle, William Robert Higgins, M.A., M.B., B.C. Cantab., M.R.C.S. Eng., L.R.C.P. Lond., to Frances Agnes, daughter of the late Matthew Brandon, of Carlisle.

HUTCHISON—HAYNES.—On April 25th, at St. Patrick's, Hove, by the Rev. H. L. Haynes, brother of the bride, assisted by the Rev. Walter Marshall, Vicar of the parish, and the Rev. Felix Asher, of Holy Trinity, Brighton, Arthur Jaffrey Hutchison, M.A., M.B., 84, Lansdowne-place, Hove, to Eve Muriel Lankester, elder daughter of Mr. and Mrs. Horace Eyre Haynes, 32, Brunswick-terrace, Hove.

DEATHS.

BOWEN-DAVIES.—On April 24th, at Gorphwysfa, Exmouth, William Bowen-Davies, L.R.C.P., M.R.C.S., L.S.A., J.P., late of Brynarlais, Llandrindod Wells, aged 60 years.

DAGLISH.—On April 23rd, at New Romney, Kent, Richard Rothwell Daglish, J.P., Mayor of New Romney, aged 66 years (retired Practitioner).

MUIL.—On April 18th, at Ventnor, Isle of Wight, William Ernest Muil, B.A. Cantab., M.R.C.S. Eng., L.R.C.P. Lond., youngest son of the late William Muil, M.D., Kirby Mooraide, and Mrs. Muil, Scalby, Yorks.

PRANGLEY.—On April 24th, at Tudor House, Anerley, Henry John Prangley, M.R.C.S., L.R.C.P., aged 50 years.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

Notes, Short Comments, and Answers to Correspondents.

THE NEEDS OF LONDON MEDICAL STUDENTS.

Mr. F. W. Collingwood has forwarded to us a pamphlet which he tells us will be circulated amongst London medical students at the commencement of the coming summer session. It rehearses the position of the Conjoint Diplomate with regard to his disability to assume the title of "Doctor" after passing examinations similar to those which at other centres would have entitled him to the designation of "M.D." The opinions on the matter which have been expressed by Sir W. H. Allchin, Professor W. Osler, and the Ethical Committee of the British Medical Association are quoted, and the circular concludes thus:—"Therefore, urge your teachers to move in this matter, which so materially affects your future welfare and position as practitioners of medicine, and petition the Minister of Education, Whitehall, S.W., on the subject, so that your grievances may be fully known and attended to by any forthcoming commission which will probably sit and report upon the whole question of medical education in London."

LONGEVITY AT BRIGHTON.

To the Editor of THE LANCET.

SIR,—One or two mistakes appear in my letter which you published in your issue of April 18th, p. 1188, and for the sake of accuracy I should be obliged if you will kindly allow me to correct them. Charles Green's ("Old Evergreen") age was 107; Captain W. Skipwith (not "Sitwell"). As a student of everything appertaining to Brighton I recently came upon this note in a short history of Brighton written by Anthony Relhan, M.D., in 1761, and this may perhaps account for the remarkable purity and invigorating properties of the Brighton air:—

> Chalky ground has little or no perspiration and therefore must be extremely healthy. The ground of this soil does not crack nor the grass burn so soon as in other soils. This is perhaps partly owing to the reflecting power of the chalk, partly to the declivity of the hills and yet in wet weather it sooner grows dry so that you may immediately ride after heavy rains without the least inconveniency. Hence it follows that in this soil there can be no marshy swampy ground excepting in such places as border on rivers. Now as the nearest river to this town is really six miles distant and as this is a circumstance peculiar to itself, no other maritime town in England being equally remote from one, I may venture to affirm that the soil here is extremely dry and that the air of this place must be proportionably pure.

I am, Sir, yours faithfully,

J. P. BACON-PHILLIPS.

Crowhurst Rectory, Sussex, April 20th, 1908.

P.S.—Mrs. Taylor, widow of the late Mr. Peter Taylor, M.P., died at Brighton the week before last in her ninety-eighth year. She had lived at Brighton for 17 years.—J. P. B.-P.

AN INTERESTING PROSECUTION.

A MAN named Mortimer has been committed for trial at Swansea and has since been taken before the magistrates at Exeter and remanded, complaints having also been made with regard to him at Abergavenny. The charges against him are based upon representations said to have been made by him that he could cure various forms of disease, and it was alleged by witnesses at Exeter that he had obtained from them sums of £8 15s. and £4 10s. by statements with regard to his power to heal. We do not propose to say more upon the subject while the cases involved are *sub judice*, but the further proceedings will be watched by members of the medical profession with interest, and whatever may be their result with regard to Mortimer they should have some bearing upon the claims to heal made by others who have no qualification to do so and upon the circumstances in which criminal proceedings may be taken against such persons with a prospect of success.

BAGNOLES DE L'ORNE.

To the Editor of THE LANCET.

SIR,—I should be obliged if, in your "Answers to Correspondents," you or readers of THE LANCET would inform me as to the suitability of "Bagnoles de l'Orne" in Brittany for treatment of varicose veins in the leg and more especially for recurrent attacks of phlebitis, probably gouty in nature. Also as to the best time to go there and the length of treatment usually given.

I am, Sir, yours faithfully,

April 27th, 1908. DYED GALLINA.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

Medical Diary for the ensuing Week.

SOCIETIES.

ROYAL SOCIETY OF MEDICINE, 20, Hanover-square, W.

WEDNESDAY.

NEUROLOGICAL SECTION (Hon Secretaries—Leonard G. Guthrie, E. Farquhar Buzzard): at 8.30 P.M.

Papers:

Sir William Gowers, F.R.S: The Mechanism of Nystagmus.

Dr. E Farquhar Buzzard: A Note on the Occurrence of Muscle Spindles in Ocular Muscles.

FRIDAY.

CLINICAL SECTION (Hon. Secretaries—Raymond Johnson, A. E. Garrod): at 8.30 P.M.

Cases:

Mr. Watson Cheyne: Spontaneous Disappearance of Recurrent Carcinoma of Breast.

Sir Thomas Barlow and Mr. C. A. Ballance: Suture of the Brachial Plexus for Birth-palsy.

Dr. Purves Stewart: Meningo-cortical Lesion illustrating Astereognosis.

Dr. J. Barnes Burt: Three Cases of Gout showing Destructive Changes in Bone.

Mr. C. H. Fagge: (1) A Case in which for Recurrent Sarcoma Parts of the Femoral Artery and Vein were Excised; (2) A Case of Aneurysm of the Common Femoral Artery, Excision of Aneurysm and of the Common Femoral Vein.

Dr. G. A. Sutherland: Scleroderma.

Mr. Albert Carless: Multiple Diffuse Lipomata.

Mr. P. Maynard Heath: Caries of Spine with Clubbing of Fingers and Toes.

The Cases will be in attendance at 8 p.m.

Short Papers:

Mr. C. A. Ballance: A Case of Arterio-venous Anastomosis for Senile Gangrene.

Dr. Norman Dalton: A Case of Leucoderma dying with Symptoms of Addison's Disease.

N.B.—Fellows of the Society are entitled to attend and to speak at all Meetings.

OBSTETRICAL AND GYNÆCOLOGICAL SECTION.—At the next Meeting, to be held on May 14th, a paper by Dr. R. H. Paramore on "The Supports of the Female Pelvic Viscera" will form the basis of a discussion on this subject. The paper will not be read in full, but will be printed beforehand and copies may be obtained on application to the Honorary Secretaries, 20, Hanover-square.

ELECTRO-THERAPEUTICAL SECTION.—The next meeting will take place on May 22nd in the Rooms of the Royal Philosophical Society, Glasgow. Members who wish to attend and who desire to avail themselves of local hospitality should communicate with Dr. Reginald Morton, honorary secretary, in order that the necessary arrangements may be made in good time.

NORTH-EAST LONDON CLINICAL SOCIETY, Prince of Wales's General Hospital, Tottenham, N.

THURSDAY.—4.15 p.m., Clinical Cases.

HARVEIAN SOCIETY OF LONDON, Paddington Green Children's Hospital.

THURSDAY.—8.30 P.M., Clinical Evening.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM, 11, Chandos-street, Cavendish-square, W.

THURSDAY.—8 P.M., Mr. E. B. Henderson, Mr. H. Green, Mr. C. Hailes, and Mr. J. H. Tomlinson: Card Specimens. Dr. F. Fergus: Ptosis Operations. Mr. E. Clarke and Sir A. Wright: Tubercle of the Choroid cured by Tuberculin. Mr. E. Clarke and Mr. S. Mayou: Tubercle of the Iris cured by Tuberculin. Mr. P. E. H. Adams: An Epidemic of Contagious Conjunctivitis due to the Pneumococcus. Dr. G. Mackay: (1) A Case of Arterio-venous Aneurysm treated by Ligature of the Common Carotid; (2) A Case of Phlyctenular Keratitis and Pustular Episcleritis treated by Antistaphylococcic Injections.

SOCIETY FOR THE STUDY OF DISEASE IN CHILDREN, 11, Chandos street, Cavendish-square, W.

FRIDAY.—5 P.M., Dr. O. K. Williamson, Dr. Carpenter, Dr. P. Parkinson, Mr. Lett, Mr. R. Howard, and others: Cases and Specimens. Dr. W. Ewart: The Empty Bronchus Treatment by Posture in the Bronchiectasis of Children.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies-street, W.C.

MONDAY.—4 P.M., Dr. G. Little: Clinique (Skin). 5.15 P.M., Lecture:—Sir William Collins: Some Tendencies in Modern Medicine.

TUESDAY.—4 P.M., Dr. J. Taylor: Clinique (Medical). 5.15 P.M., Lecture:—Dr. H. Campbell: Jacksonian Epilepsy.

WEDNESDAY.—4 P.M., Mr. J. Clarke: Clinique (Surgical). 5.15 P.M., Lecture:—Mr. E. T. Collins: Convergent Strabismus.

THURSDAY.—4 P.M., Mr. Hutchinson: Clinique (Surgical). 5.15 P.M., Lecture:—Sir Malcolm Morris: Pruritus Ani.

FRIDAY.—4 P.M., Mr. S. Stephenson: Clinique (Eye).

LONDON SCHOOL OF CLINICAL MEDICINE, Dreadnought Hospital, Greenwich.

MONDAY.—2.15 P.M., Sir Dyce Duckworth: Medicine. 2.30 P.M., Operations. 3.15 P.M., Mr. W. Turner: Surgery. 4 P.M., Mr. L. A. Lawrence: Ear and Throat. Out-patient Demonstrations:—10 A.M., Surgical and Medical. 12 noon, Ear and Throat. Special Lecture:—2.15 P.M., Sir Dyce Duckworth: Hæmatemesis.

TUESDAY.—2.15 P.M., Dr. R. T. Hewlett: Medicine. 2.30 P.M., Operations. 3.15 P.M., Mr. Carless: Surgery. 4 P.M., Sir M. Morris: Diseases of the Skin. Out-patient Demonstrations:—10 A.M., Surgical and Medical. 12 noon, Skin.

WEDNESDAY.—2.15 P.M., Dr. F. Taylor: Medicine. 2.30 P.M., Operations. 3.30 P.M., Mr. Cargill: Ophthalmology. Out-patient Demonstrations:—10 A.M., Surgical and Medical, 11 A.M., Eye.

THURSDAY.—2.15 P.M., Dr. G. Rankin: Medicine. 2.30 P.M., Operations. 3.15 P.M., Sir W. Bennett: Surgery. 4 P.M., Mr. M. Davidson: Radiography. Out-patient Demonstrations:—10 A.M., Surgical and Medical 12 noon, Ear and Throat. 3.15 P.M., Special Lecture:—Sir W. Bennett.

FRIDAY.—2.15 P.M., Dr. R. Bradford: Medicine. 2.30 P.M., Operations. 3.15 P.M., Mr. McGavin: Surgery. Out-patient Demonstrations:—10 A.M., Surgical and Medical. 12 noon, Skin.

SATURDAY.—2.30 P.M., Operations. Out-patient Demonstrations:—10 A.M., Surgical and Medical. 11 A.M., Eye.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY (4th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (2 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), City Orthopædic (4 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (9.30 A.M.), Royal Free (2 P.M.), Guy's (1.30 P.M.), Children, Gt. Ormond-street (9 A.M.), St. Mark's (2.30 P.M.), West London (2.30 P.M.).

TUESDAY (5th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.), Metropolitan (2.30 P.M.), London Throat (9.30 A.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), Soho-square (2 P.M.), Chelsea (2 P.M.), Central London Throat and Ear (2 P.M.), Children, Gt. Ormond-street (9 A.M. and 2 P.M., Ophthalmic, 2 P.M.), Tottenham (2.30 P.M.).

WEDNESDAY (6th).—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing Cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), St. George's (Ophthalmic, 1 P.M.), St. Mary's (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Gt. Northern Central (2.30 P.M.), Westminster (2 P.M.), Metropolitan (2.30 P.M.), London Throat (9.30 A.M.), Cancer (2 P.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M.), Royal Ear (2 P.M.), Royal Orthopædic (3 P.M.), Children, Gt. Ormond-street (9 A.M. and 9.30 A.M., Dental, 2 P.M.), Tottenham (Ophthalmic, 2.30 P.M.), West London (2.30 P.M.).

THURSDAY (7th).—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing Cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), St. Mary's (2.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Gt. Northern Central (Gynæcological, 2.30 P.M.), Metropolitan (2.30 P.M.), London Throat (9.30 A.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M.), Royal Orthopædic (9 A.M.), Royal Ear (2 P.M.), Children, Gt. Ormond-street (9 A.M. and 2 P.M.), Tottenham (Gynæcological, 2.30 P.M.), West London (2.30 P.M.).

FRIDAY (8th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing Cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), St. Mary's (2 P.M.), Ophthalmic (10 A.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (9.30 A.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), City Orthopædic (2.30 P.M.), Soho-square (2 P.M.), Central London Throat and Ear (2 P.M.), Children, Gt. Ormond-street (9 A.M., Aural, 2 P.M.), Tottenham (2.30 P.M.), St. Peter's (2 P.M.).

SATURDAY (9th).—Royal Free (9 A.M.), London (2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), University College (9.15 A.M.), Charing Cross (2 P.M.), St. George's (1 P.M.), St. Mary's (10 A.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M.), Children, Gt. Ormond-street (9 A.M. and 9.30 A.M.), West London (2.30 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

EDITORIAL NOTICES.

It is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITOR," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention should be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this office.

Lectures, original articles, and reports should be written on one side of the paper only, AND WHEN ACCOMPANIED BY BLOCKS IT IS REQUESTED THAT THE NAME OF THE AUTHOR, AND IF POSSIBLE OF THE ARTICLE, SHOULD BE WRITTEN ON THE BLOCKS TO FACILITATE IDENTIFICATION.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers—not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale and advertising departments of THE LANCET *should be addressed "To the Manager."*

We cannot undertake to return MSS. not used.

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METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, April 30th, 1908.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Rainfall.	Solar Radio in Vacuo.	Maximum Temp. Shade.	Min. Temp.	Wet Bulb.	Dry Bulb.	Remarks.
April24	29·39	N.W.	0·45	91	42	32	32	34	Cloudy
,, 25	29·43	E.	0·07	65	46	34	36	39	Overcast
,, 26	29·54	W.	0·14	103	51	35	39	39	Fine
,, 27	29·74	S.W.	...	80	52	39	43	46	Cloudy
,, 28	29·71	S.E.	0·24	57	50	46	46	47	Overcast
,, 29	29·95	W.	0·46	101	62	47	49	50	Overcast
,, 30	30·20	S.W.	0·14	61	53	50	51	52	Raining

During the week marked copies of the following newspapers have been received:—*Westminster Gazette, Glasgow Evening Times, Aberdeen Evening Express, Bristol Mercury, South Wales Echo, Manchester Chronicle, Aberdeen Journal, Lincolnshire Echo, Sunderland Echo, South Wales Daily News, Midland Weekly News, Law Times, Yorkshire Telegraph, Yorkshire Post, South Leeds Daily News, Somerset Weekly Gazette, Pall Mall Gazette, &c.*

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